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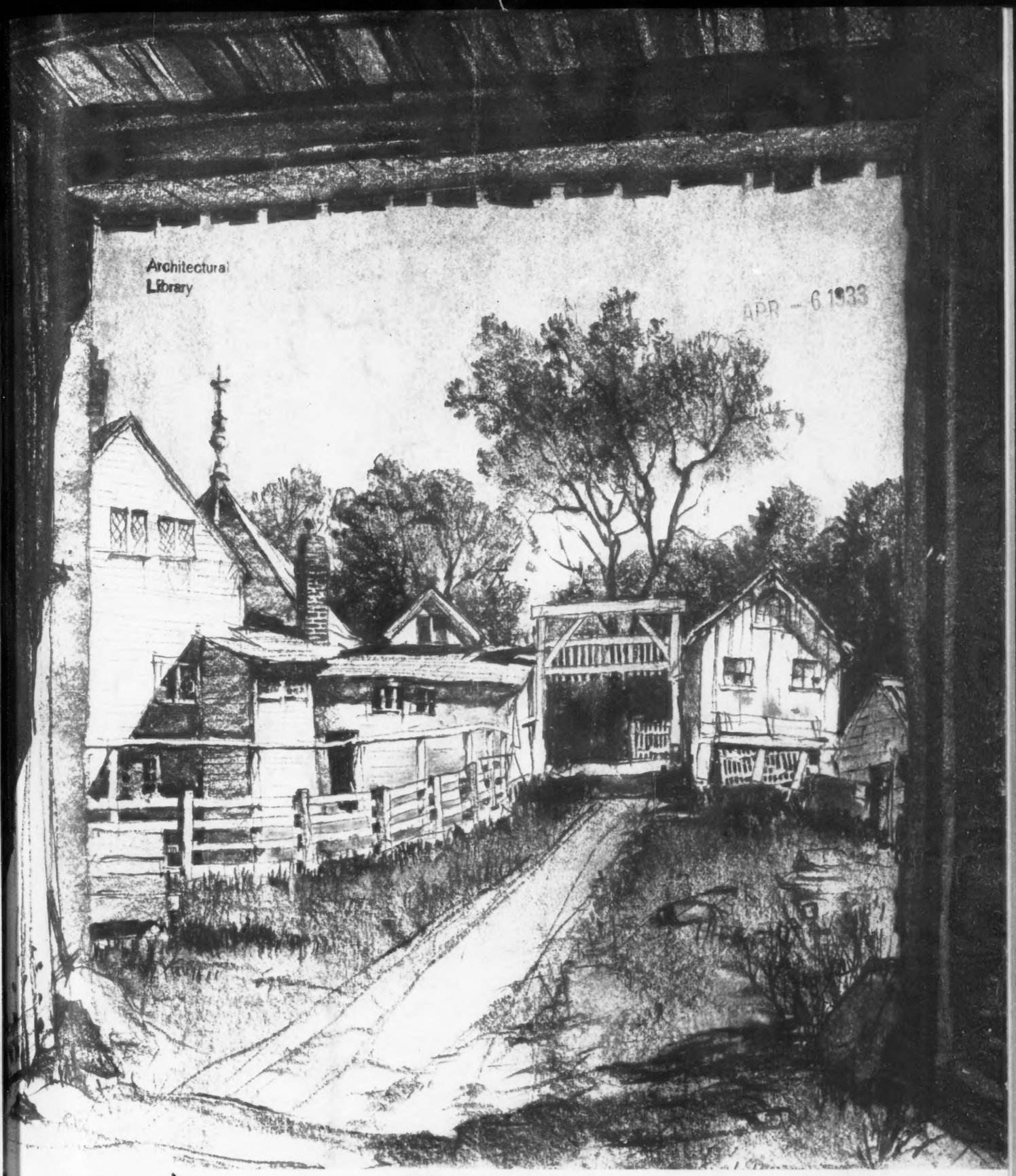

PENCIL POINTS

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Dated April, 1933

Some Recent Thoughts on Public Works

MARTIN DODGE, *Member of the Banking and Industrial Committee of the Second Federal Reserve District, in a radio address, January 29, 1933*

"Can we afford it? Is it not inconsistent with present efforts toward tax reduction, economy, and retrenchment? These questions reflect a fourth misconception regarding public works as a means for stimulating business recovery. The answer here is that if we do not spend money in such a way as to provide employment we shall have to spend it for unemployment; that if economy means blind retrenchment it becomes extravagance, for instance, a wholesale suspension of public works, ostensibly to cut expenses, simply means transferring men from the employment roll to the relief roll, which costs money just the same but adds nothing to the public wealth and makes no contribution to business recovery. Direct relief in many cases is unavoidable, but from an economic standpoint it is also unproductive. It is money taken from the taxpayers and given to others, not for services rendered by for subsistence. It constitutes an uneconomic drain upon the public treasury, which may be necessary and will be continued to prevent starvation and distress, but which we cannot afford on any other grounds.

"So much emphasis is now being laid upon the subject of taxes and budgets that misconceptions regarding this matter are not surprising. It is forgotten that taxes required to finance a program of public works will be negligible as compared with shrinkage of values and loss of earnings that result from a continuance of depressed business conditions. Such taxes will be equally negligible when paid out of the earnings of revived trade and industry. The prosperity of our cities is only a reflection of the prosperity of our citizenry. The balancing of city budgets must depend upon maintaining the earnings of the community, the ultimate source of all taxes. Budgets cannot be balanced by methods that strike down the earning power of those who provide the revenues.

"To undertake necessary and useful public works which will afford widespread employment, increase purchasing power, and stimulate numerous industries through the purchase of materials and supplies at a time when such enterprises can be undertaken at low cost, is not inconsistent with municipal economy but part and parcel of it. Not more spending but more intelligent spending is needed.

"Where will the money come from? It will come from budgetary reform. It will come from municipal housecleaning. When cities put their houses in order their credit problems will be largely solved. Budgetary reform will open the money markets. The process is dramatically illustrated by the case of New York City, which has recently reduced its yearly expenditures by more than $100,000,000. Similar, even better, results can be achieved by other cities if they have the courage to cut their cloth to the measure of the times. With this done they can proceed to cash in on current low costs and provide their communities with permanent and needed facilities, the construction of which will further benefit them in stimulating business and relieving them of the dole."

GEORGE H. DERN, *Secretary of War, in an address at Boston, March 17, 1933*

"Feeble attempts at lubrication and tinkering patchwork have failed to repair the damage or even to allay deterioration of the economic machine.

"The time is upon us when major overhaul is mandatory. Let us roll up our sleeves and set to work.

"Let no timid soul nor special propaganda frighten us into thinking that our national credit is in danger. Our national credit has never been in danger. Have we become so weak and puny that a deficit of $5,000,000,000 can undermine any American's faith in the soundness of his government? Have we forgotten that in 1918 we had a deficit of $9,000,000,000 and in 1919 we had a deficit of $13,000,000,000 without hurting our national credit?

"We still have everything we had during the boom except our nerve and our faith. What's the matter with us anyway? Have we become a nation of cowards and slackers that we pull long faces and talk lugubriously about impairing our national credit?

"President Roosevelt has not hesitated to say that a social and economic order worthy of perpetuation should be able to provide a reasonably high living standard for the people it has been designed to serve. His direct program for putting people back to work is now gathering headway.

"This is no time for curtailing needed public improvements. On the contrary, they should be expanded not merely as a make-work program for unemployment relief but to prime the pump of industrial resumption.

"There is little logic in the common opinion that recovery must be slow and painful and that we are in for a prolonged period of low prices and wages.

"It all depends upon what we do. If we do the right things, I believe prosperity can be brought back speedily. But if we permit ourselves to be fettered by the traditions of a dead past, which tell us that liquidation is the only way out, who can tell when we have reached rock bottom and when it is time to buy?"

JOHN T. FLYNN, *in* The New Republic, *March 22, 1933*

"The banking disaster and the bold measures to overcome it may be turned into an unparalleled national disaster unless they are followed at once by action; by brave and audacious action; *by an economic program designed to produce income.* Up to now we have been occupied solely with paying debts, protecting creditors, salvaging bankrupt banks, bankrupt railroads, bankrupt corporations of every sort. What is needed now is a plan—an immense, nation-wide plan—to produce income by producing work; to produce work by launching great public and private construction enterprises that will yield wages to those on the jobs and in the material factories. This plan must be launched not six months from now; not three months from now, but NOW. It must be for no halting, timid, experimental and paltry half-billion, as mentioned in Congress, but for billions. Such a plan may, of course, require departing far from the gold standard.

"The need of the nation is imperious. Plans for national projects are already formulated. They need merely be equipped with the needed funds, raised by bond issues and freed by the cutting of red tape. As for private projects, I urge that the President summon to the capital at once those groups in every large city which have been dealing with programs for slum clearance, that machinery be set up to make the necessary loans upon these plans, the best of all self-liquidating projects, that the President put the influence of his great office, now at its height, behind these projects, and get men back to work on capital construction which alone can revive industry."

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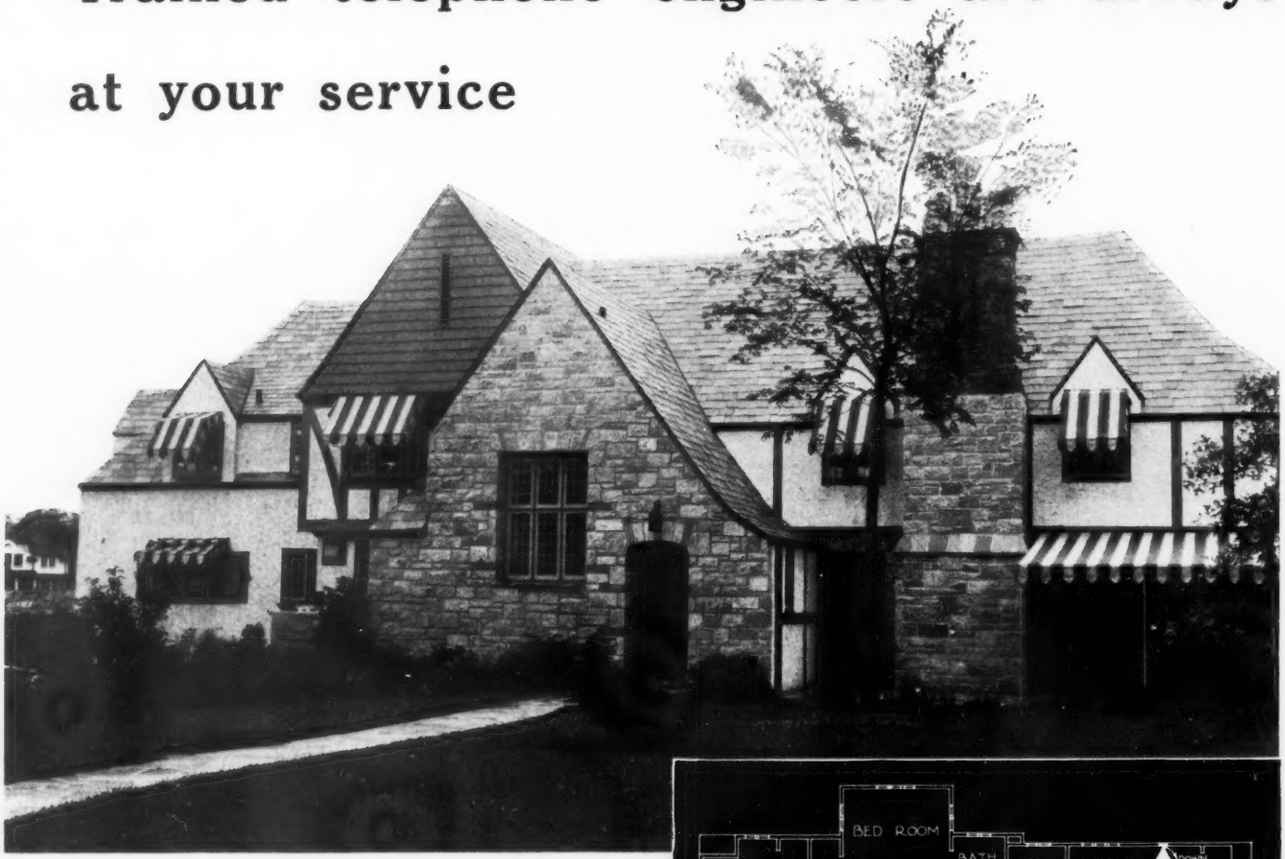
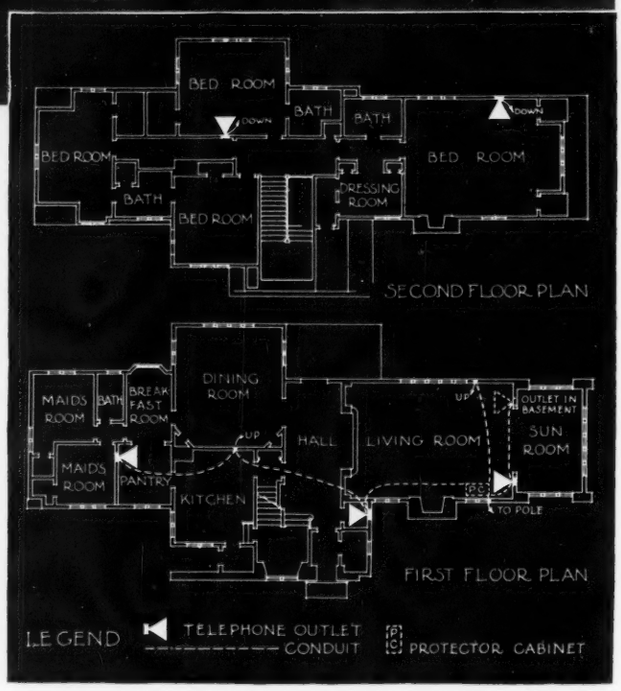


The residence of Mr. E. J. Loranger, 14 Wildwood Circle, Pryor Manor, Larchmont, New York, is equipped for telephone convenience with built-in conduit connecting six outlets, including one in the basement card room. PHILIP RESNYK, *Architect, New York City.*



SOCIAL and business life today depends so completely upon the telephone that no home is quite modern without adequate telephone facilities. Many architects provide for them as carefully as for electric lights or heating systems. And to assist in this preplanning, telephone companies offer the service of trained technical staffs, without charge.

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April — PENCIL POINTS — 1933

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by Samuel Chamberlain

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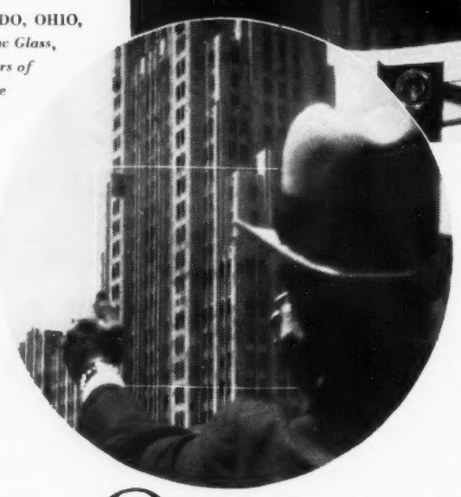

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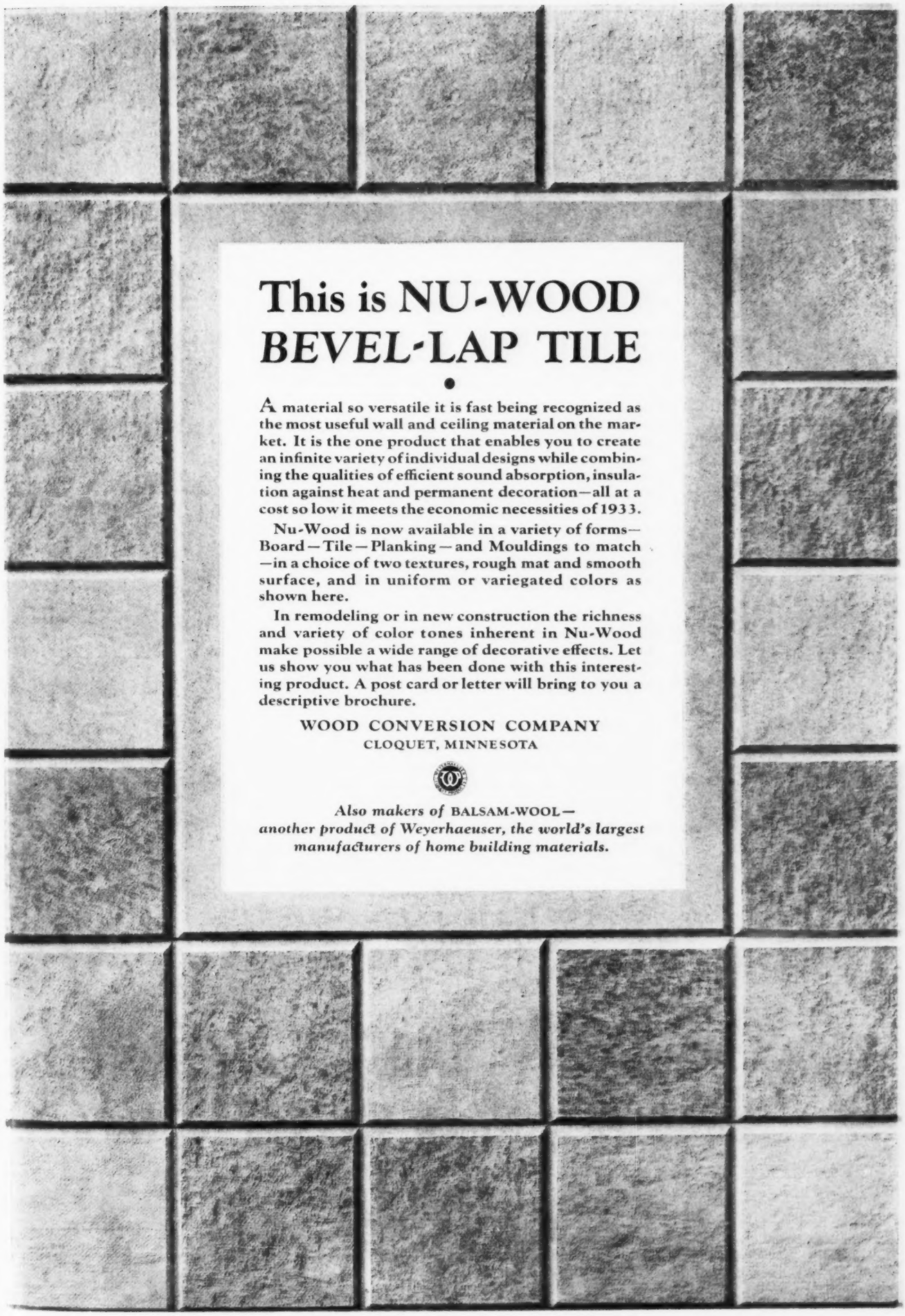

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FROM A RENDERING IN WATER COLOR BY EDGAR I. WILLIAMS

The original of the drawing shown on this plate measured 18" x 7¾". The color was applied with water colors on a black and white print made from the original pencil drawing. Opaque color was used sparingly for the vases on the mantel and for the two pictures hanging on the wall. Careful color studies of interior elevations made in this way are of great value in visualizing the finished effect of the actual job.

PENCIL POINTS

Volume XIV April, 1933 Number 4

Can We *Know* What to Build Where?

By O. H. Cheney

Editor's Note:—*The author was formerly New York State Superintendent of Banks and for many years President of the Pacific Bank in New York City. In 1930-31 he directed the Economic Survey of the Book Industry. He is now a member of the Trade Relations Committee of the United States Chamber of Commerce and a member of both the Fact-finding Committee and the Land Utilization Committee of the New York Building Congress.*

This article is the substance of a talk given recently by Mr. Cheney before a special committee of the New York Building Congress. The last portion of the talk, which should be of the utmost interest to architects, is given in full. In the first part of his talk, which will have to be briefly summarized, Mr. Cheney made the following major points.

1. No broad generalization as to the soundness or stability of real estate investments in New York or elsewhere can be safely accepted.

2. Real estate troubles are not due to the depression. On the contrary, a very potent cause of the depression has been the way realty has been developed. We have simply not been utilizing land intelligently.

3. The recent steps taken to relieve the situation—moratoria on foreclosures, friendly reorganizations, scaling down of interest charges, bond conversions, suspension of amortization, and reduction in assessments and taxes—while urgently necessary, do not represent a comprehensive plan to prevent recurrence of the evils they are aimed to palliate.

4. Real estate problems will not straighten themselves out automatically—we will have to take action which will go to the root of the trouble.

5. There is too much high valuation of land based on anticipation of commercial development that is not warranted by the facts. This high valuation is forcing people out of districts that should properly be residential and causing an increasing number of blighted areas. Then when it is proposed to rehabilitate these blighted areas the rather stupid objection is made that the land is too valuable—too valuable for decent housing but not too valuable for slums!

6. It is in the power of the men who now control the finance, development, and management of real estate to determine whether there will continue to be enormous losses to investors in real estate and whether the economic and social blighting of area after area will continue.

* * * *

I was asked by the committee to discuss the subject of the flow of capital into real estate improvement or building. That, of course, is the topic I have been discussing, even though I have not directly referred to either the flow of capital or the construction industry. But it is impossible to separate finance, real estate and building—even though the interests in each one of these fields have for years done their utmost to keep them separated. Lending institutions, real estate men, and builders have naturally worked together on specific building projects—but never have they paid any attention to each other on any matter broader in scope than the frontage of the particular building. On second thought, I will not admit that these interests have really worked together even on the smallest two-story taxpayer in the Bronx, let alone the big skyscrapers of Manhattan. If they had really worked together, they would not have perpetrated the economic crimes that they did in so many cases.

It seems very kindergartenish for me to point out that finance, construction, and real estate improvement and management are simply three phases of one economic transaction or operation. The builder or contractor is essentially a manufacturer or producer; the real estate man, whether he be owner or agent, is essentially a merchandiser. The builder produces the supply; the real estate man takes care of—or produces—the demand. But elementary as this fact is, it is rarely recognized in the actual everyday economics of either real estate or building operations. In times of stress like the present, we become vaguely aware of the connection. Building is dead and mortgage money is scarce and returns on real estate are precarious. We see that there is some connection, but most of us see it only superficially. Theoretically, money flows in the direction of greatest return. But if money is to flow intelligently, those who control the money must know the facts about the probable return. Return depends on supply and demand of buildings, just like the return on an investment in any other productive enterprise. Therefore money cannot be guided intelligently unless the one who guides it knows all the necessary facts about the supply and demand.

I apologize for inflicting such elementary logic on you—but, I ask, in how many cases of investing in real estate improvement in New York, or almost anywhere else, do the investors or lending institutions know the facts of supply and demand? How many? Are there any at all that you know about?

I have heard the answer to such impertinent ques-

tions that the law of supply and demand operates anyway—whether we recognize it or not—and that it cannot be repealed.

The glib way in which our bankers and economists always use the law of supply and demand as proof against anything they don't like or don't understand is responsible for more loose talk and looser thinking than are all the puerilities of politicians. We are assured that everything will work out right if we leave it to the law of supply and demand. We are led to believe that the law of supply and demand regulates economic conditions automatically and instantaneously —that it is a kind of economic thermostat. This is one of the unutterably stupid beliefs which have allowed this depression to drag out so long.

The law of supply and demand can no more enforce itself than can the prohibition laws.

As business units become larger and production and distribution become more massed, it takes longer for the law of supply and demand to operate—just as it takes longer to stop a big truck than a little car or to stop a car going at 70 than one going at 20. Why isn't it obvious that what is true of an automobile is just as true about our economic machinery?

It seems to be impossible for our economists to understand that the law of supply and demand, like all other so-called laws of economics, must work through human beings. The seller or producer keeps on producing so long as he thinks that there is a demand or that he can create one. The determining factor is not what he *knows* about the demand but what he *thinks*. The buyer or consumer will pay according to what he *thinks* is the supply—not what he *knows*. The law of supply and demand therefore has to work through a double ignorance. At no time can the actual supply and the actual demand be factors of importance—only the apparent supply and demand.

There are two important elements in the problem of supply and demand in buildings. Most commodities are invisible in production and consumption for statistical purposes—but buildings are certainly as visible as could be desired. The time factor is also important—although construction time has been cut down almost magically, there is still a considerable lapse between the beginning and completion of many buildings. The changes of supply and demand are far from instantaneous.

In the construction industry, our ignorance of actual supply and demand is so abysmal that it is surprising to me that the building and real estate conditions are as good as they are. The only reasons why they have been so good is that there was for so many years a rapidly growing population, tremendous industrial and commercial activity and almost unlimited money resources for speculative purposes. We were all smart on a rising market. Like the dear speculating public in the early part of 1929, we put our money on something and it went up—and we stuck our thumbs in our vests and thought we were shrewd financiers.

Compared with this crucial problem of the knowledge of supply and demand, other problems, even though apparently urgent, seem insignificant—and other conditions, even outrageous ones, seem minor. The real estate and building industries have always been champion camel-swallowers and gnat-strainers.

There has been a good deal of righteous indignation about mortgages based on overvaluations. The evils resulting from such operations are very minor compared to the evils resulting from operations which are "sound" and "conservative" according to all the standards of the mortgage banker. It is in the standards of good practice which are supposed to govern ethical builders and owners that the futility of present methods is most dramatically revealed. A code of ethics will carefully specify how much of a fee a broker may charge for buying land for a skyscraper or how much an architect may be paid for his plans—but there is nothing which tells anybody that it is economically criminal to put up the building at all.

With all our righteous indignation about graft, the waste is nothing compared to that caused by the legitimate operations of building and real estate. The architects squabble about the relative merits of Gothic or modern, the engineers discuss live loads, the agents talk about rentable areas, the builders about junior financing—but nobody really answers the question—Is the building needed? And on that particular site?

All the arguments and wailing and gnashing of teeth about lien laws, subcontractors' ethics, bidding, union rules and jurisdictional disputes—what do they amount to? They are very annoying and very burdensome, but very superficial excrescences compared to the fundamental sickness.

It has become fashionable to scare ourselves into discovering rackets everywhere. There have been plenty of rackets discovered in building and real estate. But the tolls we pay to them are picayune compared to the toll we pay to the biggest racketeer of them all—ignorance.

We organize and protest until we are blue in the face against taxes. We congratulated ourselves last Wednesday when it was announced that New York City assessments were down over a billion and that the tax rate was down 19 points. But these gains are nothing to the taxes assessed on realty and building by ignorance—by blindness and waste and, all too often, by sheer stupidity. The Tammany tiger is a newborn kitten compared with these economic animals which have always dominated the realty and construction industries.

I am not underestimating the shrewdness and wisdom of some builders and real estate men who have made successes by developments, by erecting buildings, by studying neighborhoods and acting boldly on their knowledge. But, in the long economic history of New York realty, their successes are not common. Some have reaped their just rewards—but as often as not they have been handicapped and their profits cut by the haphazard development of the city.

At the present time, I think we must confess that we cannot answer the simplest questions about building and real estate. But we must learn how—no

matter how painful the learning may be—and we must learn soon.

It has become fashionable to sneer at anything which resembles a plan. I see no more reason for sneering at a seriously worked out economic plan than at a building plan. Those in the construction industry who are trying to run their business without a plan might just as well try to build an Empire State Building from a couple of lines on a tablecloth—before it goes to the laundry.

No matter how many thousands of foolish so-called plans are spewed out in the smokers, legislative halls and the newspapers, it is still true that the only way in which the construction industry can hope to recover and stay recovered is through a plan.

It isn't necessary that we should develop elaborate systems for forecasting the future supply and demand. If we know what we have done in the past and if we have clear knowledge of what we are doing currently, it would be a tremendous step in advance—it might prove almost revolutionary in its effects on both building and realty—and finance.

Such a plan cannot be developed overnight. It is not easy to get really accurate facts about the economics of any industry. I have no illusions about the ease and simplicity of putting a good plan into action—I have had too much first-hand experience in trying to discover economic facts on an industry-wide scale not to have clear vision of the innumerable difficulties and annoyances. But it can be done—because it must be done. The realty and construction industries are doing as big jobs every day—but of a different type.

This is no time or place for laying out a detailed program, but if I were active in building or real estate, I would want to know continuously the answer to a lot of questions, such as:

1. What is the present supply of available accommodations in each class of building and use?

2. What is being actually added and what planned?

3. Exactly where are these old and new supplies?

4. What economic and other influences are now at work which might affect particular neighborhoods and buildings?

5. Is there a danger of oversupply of a certain type of accommodations in a given neighborhood beyond the possible absorptive powers?

6. Of what kind of accommodations is there an inadequate supply, and where?

7. Why are tenants moving in or out of certain buildings or areas?

8. What competitive accommodations are being offered in other parts of the city or metropolitan area?

9. What are current returns on various types of property in various areas, and what are the causes of differences?

10. What buildings are ready for demolition and what areas are ready for rehabilitation?

11. What facts are necessary to determine the best use of any given piece of property?

12. What are the extent and causes of current vacancies? (Not the sketchy, inaccurate and misleading so-called vacancy surveys which so many real estate organizations have made.)

These are only a few of the questions which an inventory organization could answer.

With such facts at their disposal, owners of projected property need not be blind as to prospective returns and builders need not be blind as to the market for construction work. Maybe even investors will heed the facts of supply and demand before investing—or is that too much of a millenium to hope for? Certainly, those who want to guide the flow of capital honestly to sound investments will have the necessary knowledge for practical control. Perhaps, ultimately, we can learn how to maintain properties and neighborhoods in such condition that they do not become dilapidated and blighted. Perhaps, ultimately, we can learn how, when a building has finally outlived its usefulness, to destroy it at once—get it out of competition and make way for another building or for an open space. Perhaps, ultimately, we will practice the technique which we have only recently begun to learn, of developing blocks and neighborhoods as a whole, instead of piecemeal.

With the gearing of supply to demand and with the orderly development of neighborhoods, we shall at last approach real city planning—not only æsthetic or sociological, but also economic. And we may be surprised to find that there is not the irreconcilable conflict between these three types of planning that we now think there is. We may discover, for instance, that a lot of open space on what we thought was prohibitively high-priced land is not only good to look at and good for the health of the community but also is economically sound.

I do not agree with those who are afraid that if we knew the true facts of supply and demand we should find such an oversupply that building would stop. There are vast quantities of building to be done. Not only must the industry keep up with new needs each year and with replacement demand, but it still has to catch up with needs which have never been met. If an economic machinery ever provides stability to our living standards, the building industry need not worry for a long time about its market. In decent housing alone, I don't know how many decades we are behind. Even in the much-maligned field of public and semi-public buildings, there are tremendous needs still to be met.

At the present time, the building industry thinks that it has only two alternatives—only two possible hopes. Either the governments, Federal, State, or municipal, will accelerate their building programs or else, in some mysterious way, speculative building money will go crazy again. I believe that there is a third alternative in what I have discussed—and the only real hope of permanence and stability and sound investing. I believe that the only real hope is in organizing to build in an orderly manner with intelligently guided money.

GERONA, SPAIN
FROM A PENCIL DRAWING BY JOHN PETRINA

CHATEAU FRONTENAC, QUEBEC—PEN-AND-INK BY THE AUTHOR

On Sketching with Pen, Pencil, Charcoal, and Brush

By John Petrina

Pen-and-ink drawings can be either pure line drawings, line with solid blacks, or drawings where values are obtained by regulating the number of lines and their intensity, or a combination of any or all of these styles. Line drawings and line with solid blacks (see Quebec Policeman at right) are as safe for reproduction as brush drawings, and lose little in the usual reduction for reproduction. Pen drawing with values (see illustration of Chateau Frontenac), on the other hand, require more thought and care, for when the reduction in the reproduction is too great, the white spaces between the lines are proportionately reduced, and the result is that they fill in and become black. Pen drawings reproduced on ordinary paper, such as newspaper and wood pulp stock or, for that matter, any soft uncoated stock, also run this risk of filling in, in the printing, unless care is taken that the lines are kept well open. Very fine "thin" lines are sometimes lost in making the plate, while a heavy line will become even heavier in the printing. For this reason a very pure medium black line is the safest.

On beginning, ordinary pen points are better than drawing pens. Drawing pens are really too flexible in the hands of beginners and are harder to control than

ST. TROPEZ, FRANCE—FROM A CHARCOAL DRAWING BY JOHN PETRINA

This drawing was made on "Manila" detail paper. Drawings in charcoal and soft carbon pencil should be fixed with fixatif as soon as finished.

pens one is used to. As skill is gained, of course, the use of drawing pens, made specially for the purpose, will become natural. The paper should be either hot pressed or Bristol board, but for practice work and for broader pen and ink renderings, I find that a strong transparent paper of the parchment type is very good, and permits one to see the pencil drawing, which can be placed under it, without having to draw it on the paper itself. On the hot pressed and Bristol board the preliminary or tentative drawing should be made very lightly, and preferably with a light blue pencil. This allows the artist to distinguish his pen lines from the pencil. The beginner will find the need of first making a careful pencil drawing before touching the pen, so that all the effort will be given toward the pen rendering and none toward making the drawing itself. In time, one should rely more on drawing with the pen and less with the pencil, as this gives the pen drawing a quality that is different than when one works over a pencil sketch. A preliminary pencil sketch will make the drawing more accurate, while a pen drawing made without the aid of a pencil sketch usually has more feeling and tends to be less tight.

Corrections on pen drawings are possible, but not desirable, for they certainly do not improve the appearance of the original, even though they may not show in the reproduction. When some of the lines need to be removed, flat white or a gritty ink eraser will do, but when a part of the drawing needs to be made over, the usual method is to fasten with rubber cement a new piece of paper over the part one wishes to redraw. In such cases care must be taken that the lines do not show a break at the edges. The patch itself will not show in the reproduction.

Pencil

The popularity of pencil has taken a certain glamor and interest from it that is unjustified. Such masters of the pencil as Ingres will convince anyone at once that real works of art can be produced with pencil. There is nothing to equal it for convenience and the fact that the cost need never to be considered. A good pencil drawing is a clear, spirited drawing. If there is a tendency to make pencil drawings look soft, it is usually due to the fact that students copy pencil tech-

niques which are not at all suited to their own inclinations. Imitations are always weak, and this is more obvious in pencil rendering than ever. Most things that I have to say about pen, pencil, charcoal or any other medium are suggestions the value of which anyone would in time come to see. The only purpose in my writing this is to reduce the time required in finding oneself and in mastering these mediums, as much as possible.

A spontaneous sketch can easier be made with a softer pencil, while more finished drawings require harder pencils. Personally, I like a pencil drawing which is either a very spontaneous sketch—for which pencil is suitable—or a well finished drawing. A soft pencil on a smooth coated paper, such as cameo, will give a quality that is more like painting than drawing; when drawing for values and not for line, I do not know of a better surface. If, however, one should want to make a pencil drawing from another drawing, a smooth, transparent paper placed over whatever one wishes to redraw will serve very well and will save a great deal of time in redrawing, since this is virtually a tracing of the previous drawing. The illustration "Gerona, Spain," was made by this method.

Corrections on pencil drawings can be made either with a soft or a kneaded eraser, such as used for charcoal drawing. Personally, I prefer the latter, since it not only removes, but absorbs, the graphite. As in any other form of drawing, one should not depend on corrections, for they are bound to take away the vigor and directness, though of all mediums, pencil is among the easiest to correct. When a pencil drawing is finished, one should apply charcoal fixatif to it. Since no changes can be made after this is applied, it should not be used until one is certain that the drawing is finished. Fixatif not only fixes the pencil drawing so that it will not rub, but it will also give it an added lustre and richness that would be lacking without it. In applying fixatif to a pencil drawing, first, it should be blown very lightly and sparingly, then allowed to dry, and then a second spraying can be given. It is better to apply the fixatif twice, than all of it at one time, for if all is applied in one spraying, there is a danger of wetting the drawing instead of dampening it thus causing the graphite to dissolve and produce a blur.

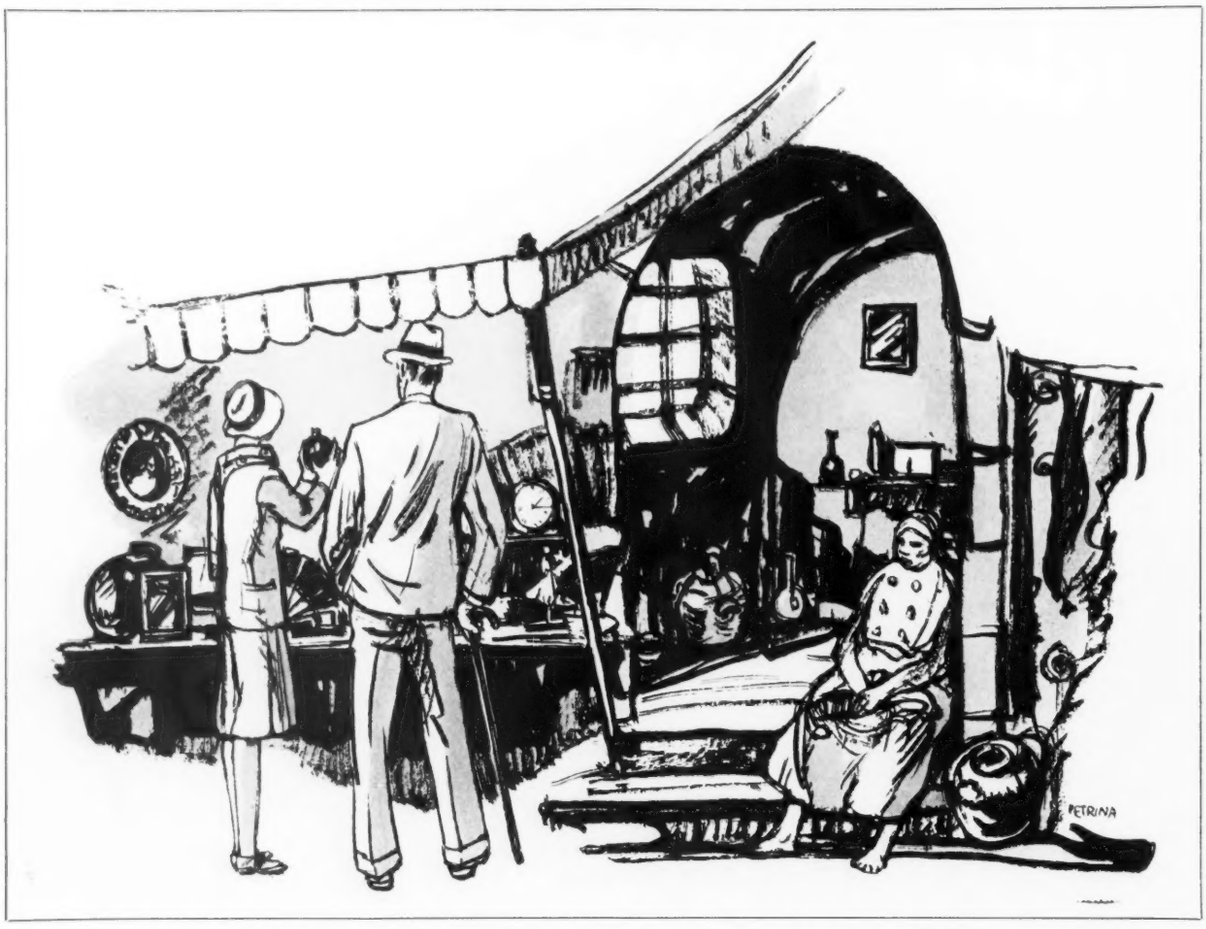
Charcoal

I can only think of one disadvantage that charcoal has, and that is that because it is a comparatively soft medium it is best adapted for broader type drawings, which mean correspondingly larger ones in size. The hardest charcoal made will not give the fine detail that a hard pencil will give. On the other hand, when great detail is not necessary, charcoal gives one a pure, flat black that for beauty cannot be surpassed by any other medium. That, and the fact that it takes to paper so readily, and at the same time can be so easily removed when changes and corrections are necessary, makes charcoal as near perfect a medium as anyone can desire.

A DRY BRUSH DRAWING

One need not limit himself to the so-called charcoal papers, when drawing in charcoal. Almost any paper with a tooth or grain is good for charcoal. Charcoal is now also made up in pencil form, in three degrees — soft, medium, and hard. This is a convenient form for the finishing of a charcoal drawing where a clean, definite line is required. For the large masses, the sticks remain the best. Most of my charcoal drawings are made without the aid of these charcoal pencils, although on some occasions I have found it necessary not only to use charcoal pencils, but seek even more than a charcoal pencil will give in the way of a hard, clean line. At such times I have drawn these particular parts with a hard carbon pencil, leaving the charcoal for the stronger and heavier effects.

This and the above illustration show direct life sketches by the author. This sort of thing is good training for the architectural man.



A BRUSH DRAWING WITH USE OF BEN DAY TINT FOR THE HALF TONES

In pen and brush drawing Ben Day tints are often used in the reproduction. This mechanical gray is not objectionable when used discriminately. Where Ben Day is desired it should be indicated by a light blue wash or blue pencil over the surface wanted to be so treated. Ben Day comes in numerous textures and intensities. This can be specified by the artist or left to the judgment of the engraver. When no water tints are applied over a brush drawing, the brush drawing can be made with lamp black instead of waterproof India ink. This gives a much more mat black than the ink.

A chamois skin removes charcoal sufficiently for ordinary corrections. When this is not sufficient, a soft eraser, or preferably a kneaded eraser which is really intended for charcoal, should be used. Since charcoal rubs very easily, one must not lose time in applying fixatif as soon as it is finished. When applying fixatif to a charcoal drawing, the same rule as used for applying fixatif to pencil drawings should be observed—that is, not to apply so much at once as to cause the charcoal to become wet and run. Fixatif for charcoal need not be the prepared kind furnished by artists supply houses. Shellac very highly diluted in alcohol becomes suitable fixatif. White shellac is usually used, but when a drawing has been made on a white paper and the artist feels that a warm tint over it would be an improvement, denatured alcohol with a little brown shellac applied with a blower will act both as a fixatif and as a means of toning the paper. One should bear in mind that this is more suited, if the drawing is not to be reproduced, than it would be if reproduction must take place, because any tint or tone will reduce the intensity of the blacks and whites and neutralize the drawing to a point that, when further neutralization takes place, as in making the plates for reproduction, the final effect will be a lack of contrast and the reproduction will seem flat.

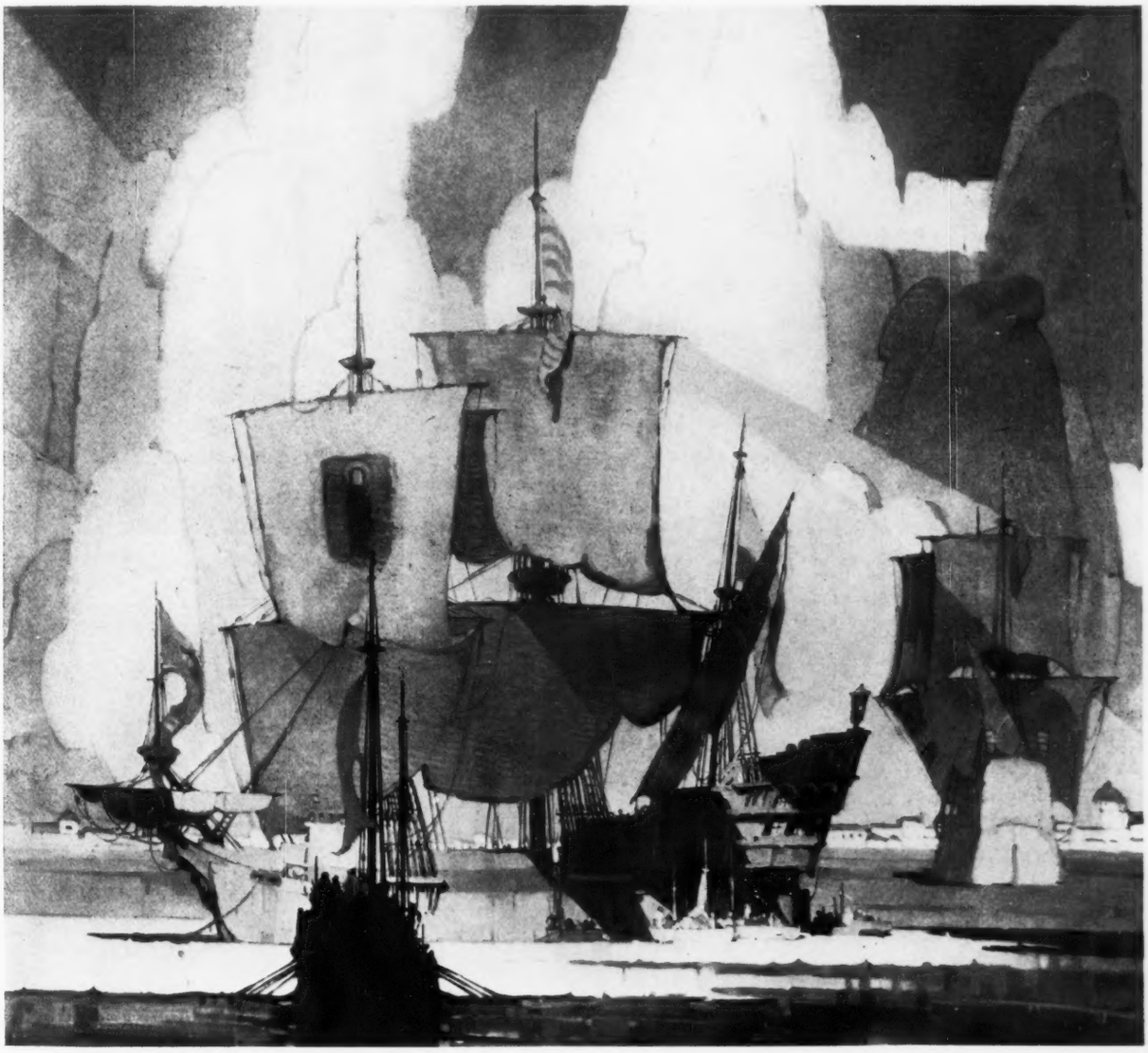
Brush

For reproduction, brush is an excellent medium. Brush allows the engraver to make line cuts which can be printed on many varieties of papers and the cost of a line cut, which can be made on zinc, is much less than that of a half-tone cut made on copper. It is better than a pen drawing, which can also be reproduced in line on zinc, because a brush line is not as delicate as a pen line and therefore has more support from the body of the cut, and brush drawings, being usually broader, do not fill in the way a pen drawing often does. Brush drawings have the further advantage over a pen drawing in the fact that, even though the surface of the paper may be hurt when corrections are made with a gritty ink eraser, the brush will draw over this surface in a way not possible with the pen. Brush drawings are freer and more spontaneous in feeling than a pen drawing, and can be made on any grade of paper, but preferably on paper that has some surface.

By a brush drawing is usually meant a drawing

which is produced by a solid black brush line. A softer and grayer line can also be produced by using the brush half dry. This is known as a dry brush drawing. In a dry brush drawing some of the very fine dots that give the illusion of gray are often, if not always, lost in the process of having the reproduction made. However, the stronger grays are retained in the reproduction, and they create the effect of a half-tone. As in pen rendering, it is practical to use a light blue pencil in indicating what one plans to do with the brush. Corrections can be made either with an ink eraser, by painting over with white, or by pasting a clean paper over the place which one desires to do over. Naturally, corrections and patches do not help to make the original attractive, but, since we are primarily concerned with the reproduction, such methods can be resorted to when one has not the time to do the work over in its entirety.

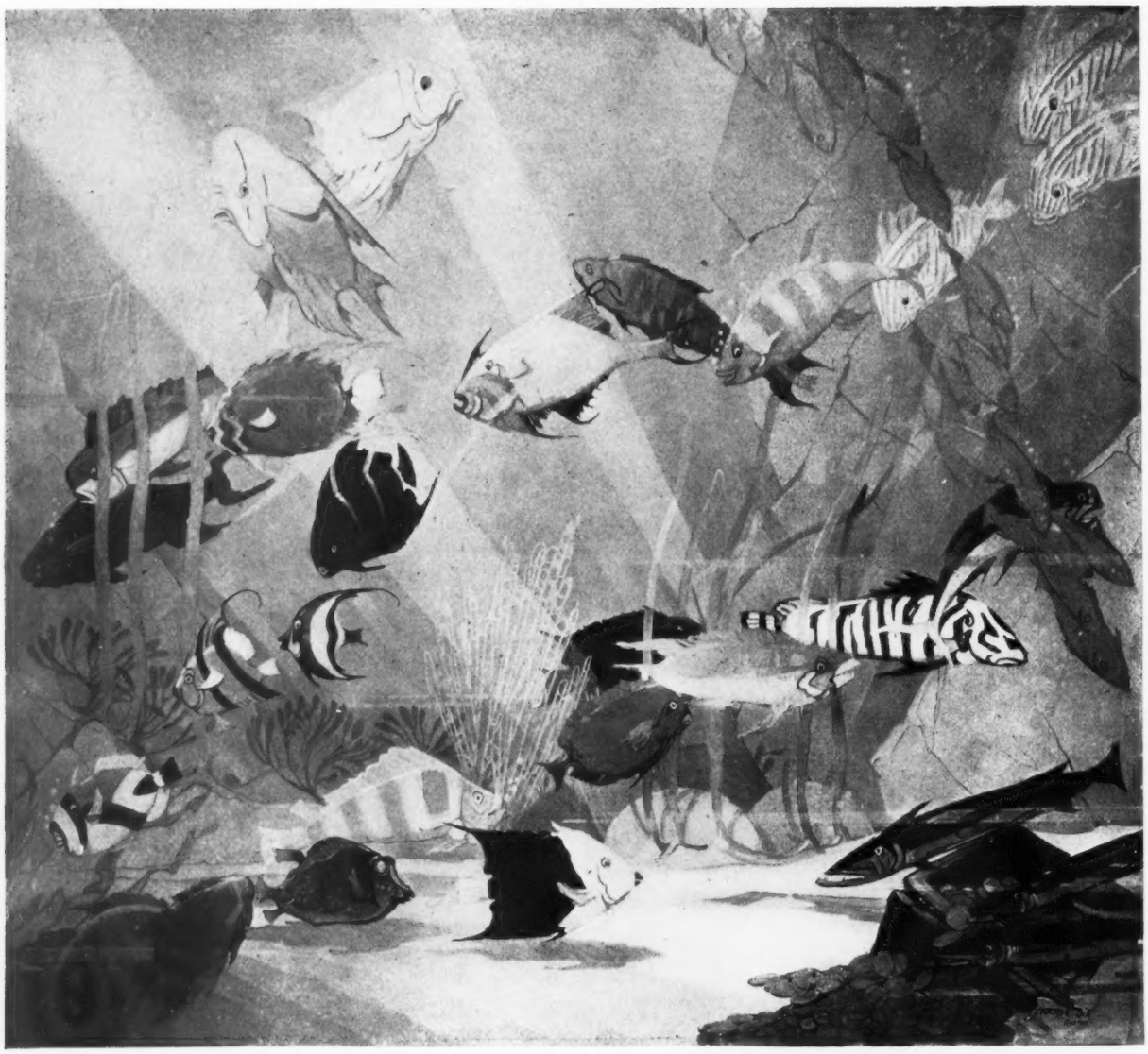
When the surface of the paper is sufficiently rough, a lithographic crayon may be used to produce a grayness which can be reproduced by a line cut, or one can run light washes of blue where solid grays of different intensities are desired. Where it is indicated by the blue washes, a mechanical process known as Ben Day is applied. This will give the parts of the line drawing thus indicated an even tone, that, though mechanical in appearance, may improve the drawing considerably when discreetly used.



MURAL DECORATION IN MAIN LOUNGE

UNITED FRUIT COMPANY'S S.S. "ANTIGUA"

Designed and executed by Carroll Bill, Mural Painter.



MURAL DECORATION IN MAIN LOUNGE
UNITED FRUIT COMPANY'S S.S. "QUIRIGUA"
Designed and executed by Carroll Bill, Mural Painter.

Ripley's Recipes*—Proem

Editor's Note:—*This brief introduction heralds a series of gastronomic discussions by Hubert G. Ripley, Boston architect and epicure, which are to appear month by month hereafter in* PENCIL POINTS. *Look for the first "Recipe" in our May issue.*

When the pall of prohibition descended in 1919, culture and civilization in these United States suffered a stroke of infantile paralysis, as if the pneumogastric nerve of the Aganappides was throttled by the titanic grip of an anthropoid Aquarius. Gasterea, that sweet-smiling tenth Muse, who had, on occasion, deigned to commend the humble efforts of certain of her devotees, fled in alarm. *Hoi polloi* grumbled and cursed, the intelligensia, sorely smitten but refusing to acknowledge defeat, toiled and experimented in a depressing struggle against a bigoted oligarchy, like Laocoon and his sons in the coils of the serpents of hypocrisy and intolerance.

Aquarius, it may be said in passing and by way of digression, once tried to corrupt Ganymede by inducing him to put more than one-half of one per cent water in the nectar of the gods. At first this was not noticed, and emboldened by the success of his strategem, one day when Jupiter had sent his cupbearer down to the A. and P. to take advantage of the week-end special on Ambrosia, Aquarius, who for the moment had replaced the sommelier of the gods, added 2.75% water to a round of nectar he was serving. This profanation was immediately detected and, in spite of the unhappy wight's protestations, Jupiter went up in the air uttering thunderous anathemas. Apollo cried, "Strike the Lyre!" in a loud voice and even white-armed Hera pouted so pointedly that a cloud obscured the Sun, while Hephaistos became so cold and stern that the vineyards of Mount Helicon, situated directly underneath him, shrivelled as from a frost. The irate gods berated the offender roundly, and Jupiter, seizing him by the tendo Achillis, with a mighty heave tossed him far up into the Empyrean. There he was changed into a constellation, and set in derision between the goat and the two herring, doomed to drive the water-wagon for untold æons. For further details, see Eudoxus and Aratus, IVth and IIIrd cent. B. C., and Tycho Brahe, the Danish astronomer, and Helvitius of later date. Virgil in the Georgics mentions that poor Ganymede was also a victim of the celestial wrath.

As a direct consequence of the present deplorable state of affairs, another generation has grown up largely in ignorance of the refinements and amenities of civilized living, and the elder generation may have forgotten many of the niceties that used formerly to accompany gatherings at the social board. Inasmuch as our period of bondage begins to show signs of disintegration and the dawn of a new era approacheth where, let us hope, tolerance may reassume her sway, perhaps a few random reminders of the *dies aliis* may be allowed to season our inchoate speculation.

According to many well known authorities, the art of banqueting had been brought to a high degree of perfection in the Egypt of 3000 B. C. The natural resources of the country were reinforced by skillful husbandry. The fame of the Bubastis onions, grown in the rich black earth of the Delta, was wafted from Gnossos to Kokobad. Eggs, artificially incubated, produced larks and pheasants and squabs. Game and fish preserves were maintained by the landed gentry, while the common people brewed beer to wash down their hoe-cakes and honey. That learned grammarian of Naucratis, Athanæus, author of the "Deipnosophistoe" (Banquet of the Cognoscenti), tells many curious and interesting anecdotes about people and food. The author, who lived in the second century A. D., appears to have been "an agreeable, well-read, epicurean gentleman, excessively fond of tid-bits, both of scandal and cookery." For information on the manners and customs of the ancients he is an inexhaustible storehouse, we are credibly informed. The same authority remarks that the Casubon edition of his works published in 1612 is far superior to the editions of 1595 and 1657.

He (Athanæus) says that the cooks of Egypt developed extraordinary skill and that the women of the household, even in princely families, were adepts in housekeeping and in the arts of the kitchen. Paintings in the old rock tombs indicate that many arts contributed to the pleasure of the table. Metalsmiths and potters produced graceful implements and wine-jars for the banquets, cups of glass and alabaster, gold-plated furniture, squab cushions, and palm-leaf fans, rose leaves and mint and frankincense for the guests, while singers and musicians, mimes and jugglers and dancers, whiled away the intervals between courses.

In 470 B. C., there was a society in Athens that held public cooking contests and prizes were awarded to the champions. Cheiromenes won a palm for his manner of dressing truffles, larded, with parsley, spices, dried figs, honey, raisins and paste, shaped like a tart, the whole being soaked in the white wine of Corinth. The names of famous cooks have come down to us; Syros, Karion, Drakon, Daidalos, to mention only a few. There were laws in their favor. At Sybaris on the bay of Tarentum, originally a colony founded by the long-haired Archæans, the inventor of a new dish could procure a copyright on it, and alone could make it or sell it. Study and reflection on gastronomic matters cannot but be helpful when the New Era arrives.

*Note on recipe. *According to that ultimate authority, H. W. Fowler, it is sometimes debated, for the most part idly, which of the two, recipe (pronounced recipe) or receipt, is the right word. Either is as good as the other, except that the latter, used in the sense of formula for the making of a food or drink, is still more nearly disused than the former.* (See Mute E.)

South Elevation of THE CHIMNEYS. The Residence of
Mrs CHRISTIAN R. HOLMES
at Sands Point, Port Washington, Long Island
Edgar I. Williams, Architect, New York.

LINE AND WASH DRAWING IN BLACK AND DILUTED INDIA INK BY EDGAR I. WILLIAMS, ARCHITECT

SOUTH ELEVATION, RESIDENCE OF MRS. CHRISTIAN R. HOLMES, SANDS POINT, PORT WASHINGTON, LONG ISLAND, NEW YORK

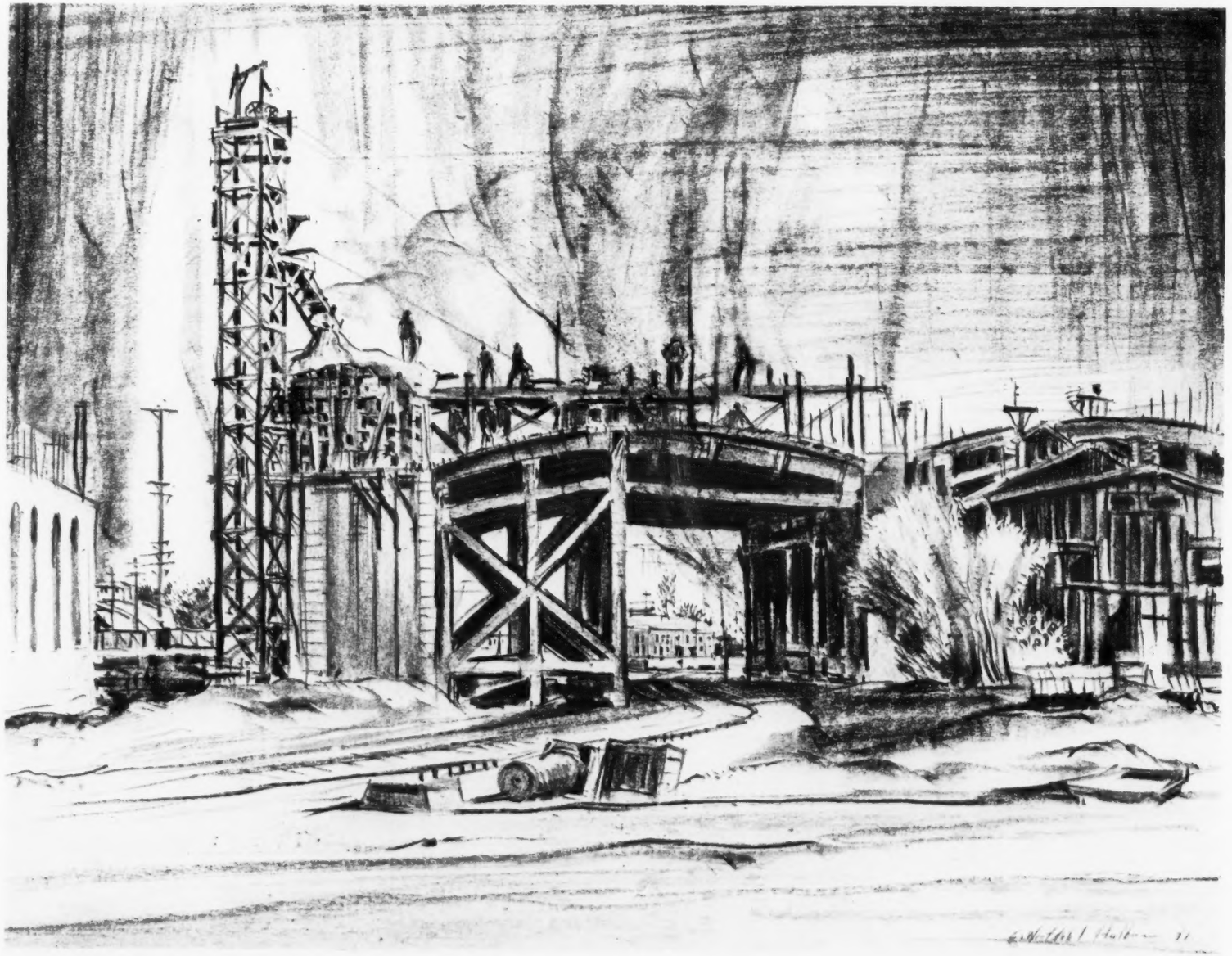
The original rendering from which this reproduction was made was drawn at a scale of one-eighth inch to the foot. It is an exquisite piece of draftsmanship carefully worked out in every detail so that it is a faithful presentation of the building it shows. A detail at exact original size is shown on the facing page.

DETAIL, AT ORIGINAL SIZE, OF DRAWING SHOWN OPPOSITE

PORTION OF SOUTH ELEVATION, RESIDENCE OF MRS. C. R. HOLMES, PORT WASHINGTON, NEW YORK

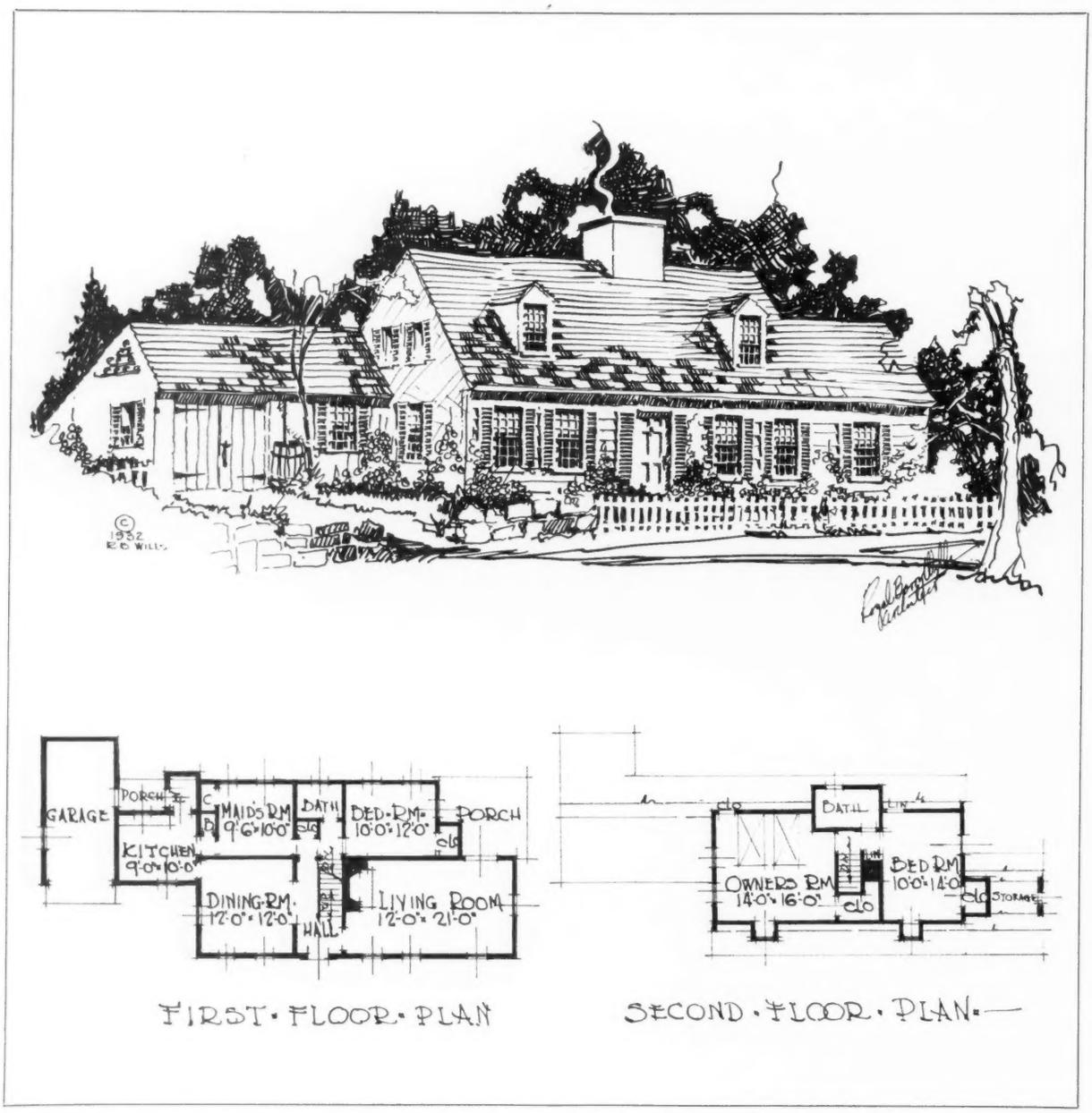
Edgar I. Williams, Architect

"THE ROYAL EXCHANGE, LONDON"—LITHOGRAPH BY C. WESTDAHL HEILBORN



"BUILDING A BRIDGE"—LITHOGRAPH BY C. WESTDAHL HEILBORN

A Present-day Residence Design Based on Early American Precedent



A SEVEN-ROOM HOUSE WITH GARAGE DESIGNED BY ROYAL BARRY WILLS

THE ARCHITECT WHO WAS RECENTLY AWARDED THE GOLD MEDAL FOR 1932 BY "BETTER HOMES IN AMERICA"

THE MONOGRAPH SERIES

RECORDS OF EARLY AMERICAN ARCHITECTURE
AS SOURCE MATERIAL

EDITED BY RUSSELL F. WHITEHEAD, A·I·A

VOLUME XIX

MONOGRAPH TWO

The Dwellings of Newbury Old Town

BY FRANK CHOUTEAU BROWN

Photographs by Arthur C. Haskell

Continuing further to trace the gradual development of our early domestic architecture in the Eastern settlements during the Seventeenth Century, we may turn to the older section of Newbury, Massachusetts, to provide some pertinent and definite illustrations. The early small two-room story-and-a-half cottage, with chimney at one end, was soon supplanted by the full two-story house with end chimney —as in the original portions of the Coffin and Swett dwellings at "Ould Newbury," dating from about 1653 and 1670, respectively.

Both types were soon enlarged, by adding other rooms beyond the chimneys; or in some of the ways particularly described herewith—or they were supplanted by the larger plan, with central chimney and staircase against its southern face, with living "Hall" at one side, and the principal family sleeping chamber at the other. This obvious and simple arrangement was soon supplemented by the separate kitchen at the back of the chimney—usually in a leanto at the rear.

Next, one or both of the end spaces might be divided into two rooms—the rear ones upon the second floor being reached by another stairway in the "leanto"; and then the plans' final amplification might be made by substituting end chimneys for the large central one, thus allowing the central hallway to extend through the house to reach the rear as well as the front rooms, upon both upper and lower floors.

Among these Newbury Old Town dwellings, the Jackman-Willett house itself illustrates the next step beyond the original Riggs house at Riverdale, Cape Ann (pages 2 and 3 of the preceding Monograph), in the story-and-a-half cottage—now with three rooms upon the ground floor; while the Tristram Coffin house shows—although with a difference, itself almost unique!—the favorite method of adding a new and fully developed plan upon one end of the earlier southern-fronted cottage, leaving it to function as a kitchen ell, and establishing a new frontage to either east or west, toward a main highway. And, finally, the Swett-Ilsley grouping shows a more extensive arrangement of an early house extension, as in the Riggs dwelling, but here that process has been extended over a period of fully a hundred and fifty years, while at the same time changing the direction of growth—all as will more fully appear in detail in the accompanying text.

It was in 1634 that the Rev. Thomas Parker, of Newbury in Old England, arrived in New England with Nicholas Noyes, John Spencer and nearly an hundred other followers, on the "Mary and John." They made their "landing" on the shores of the Quascacunquen, now the Parker, River; very near where the "Old Bay Road" from Ipswich to Newburyport now crosses that stream—and the earliest settlement was upon the northern bank, although in 1642 most of the settlers removed to more fertile land a few miles further northward, where each freeholder was given a "house lot of 4 akers," in the area still known as "Newbury Old Town." And here the

original Noyes home still stands, near the "Lower Green," although it has been so added to and changed —both within and without—that little remains to substantiate its early date (of about 1645 or '46) except its huge timbers and summers, themselves largely out of sight above the lowered plaster ceilings added in later years.

Along with the Spencer-Pierce house (illustrated on page 16 of the preceding chapter), now usually known as the Little House, nearby—but of an ancient character still apparent despite the changes and additions that were made some hundred or more years ago—it is probably the most ancient among the early dwellings of this old part of Newbury. But the latter's cross-shaped plan; its thick stone walls, and old kitchen chimney (at the end of what is the northern arm of the cross—the southern portion being the unusual brick gable or "Porch") make it unique among Massachusetts early house architecture—its nearest counterpart being probably the "Old Stone House" (1640) at Guilford, Conn. It, too, was probably built very near 1645 by either the original holder, John Spencer—or it may have been a few years later, by one Daniel Pierce, who bought the land of John Spencer's son in 1651.

Not only was the Coffin family prolific in the number of its human descendants, but also in its architectural products, as well. Tristram, the first of that name in the new world, was an old Royalist, who arrived in Haverhill, Massachusetts, from Brixton, Devonshire, in 1642, and first settled at Salisbury, near the mouth of the Merrimac. In December, 1647, he was granted the ferry privilege at "Newbury side," as well as keeping an "Ordinary," or Inn. But by 1653 the original part of the present Tristram Coffin structure, a two-story building with one room on the first floor and two on the second, with a chimney at its eastern end—now a part of the rearmost section of the house—was certainly in existence; as on March 2 of that year his son, Tristram, Jr., married Mrs. Somersby (née Judith Greenleaf) a widow, and was living there. It is even possible that this may have been a still earlier structure—belonging to the widow herself!

Meanwhile, his father, Tristram Coffin, Sr., removed to Nantucket in 1659 or 60; and there the name of the family has been perpetuated on what is now the oldest house on the Island, the Jethro Coffin house, built about 1686.

The original house had faced south, as was usual, with its doorway in front of the chimney near its eastern corner. Tristram, Jr., died Feb. 4, 1704, aged 72 years, and in his will left his "dwelling hous" to his son Nathaniel. About 1693 the frame of another building was moved up to within 13 or 14 feet of the easterly end of the older house, and what is the southeastern portion of the new front part of the dwelling was finished off, the old chimney rebuilt —or torn down and built anew—along with the intermediate portion necessary to connect the two sections. It is the fireplace in this chimney, and this room, that is shown in the measured drawing and accompanying photographs, though some of the finish may be of a still later date.

There seems to be some doubt whether the entire eastern front plan, as it appears now, was built at this time; or whether the central hallway and door in the middle of the street front, along with the rooms at the right or northern end of this new frontage were added at the time of the marriage of Nathaniel's son, Joseph, on July 15, 1725. In that event, the finish of the room shown here might have been renewed either then, or possibly shortly after Nathaniel's death, when 80 years old, on February 20, 1749.

Finally, either in 1725—or at some subsequent period before 1785—there was added a room at the back or northerly side of the original house to make a kitchen for the new front northerly portion; just as the rooms at the east and west of the oldest chimney were also in use as kitchens to serve the—at least!—three Coffin families that were simultaneously living in the old homestead!

The girt shown a few feet in front of the fireplace, shown in the drawing on page 21, is paralleled by another exposed a few feet beyond the western side of the same chimney, showing the portions that were added to these two rooms when the chimney was rebuilt and the two sections connected; while a slight bend in the southern length of the present building suggests to the careful observer that something a little out of the usual had probably here taken place. It is this intermediate section that is unusual—almost unique—in the records of enlarging early Colonial dwellings! While another unique feature is to be found in the old "Buttery" contained within the front portion of the dwelling, which has remained undisturbed from its original upfitting for almost two hundred years.

The other most interesting local dwelling is the Swett-Ilsley House—now again a hostelry!—which represents the changing backgrounds of over a hundred and fifty years in its various additions, without—as it fortunately happens—any of the later additions much obscuring or changing the work that had gone before. Along with the Tristram Coffin House, it is now owned by the "Society for the Preservation of New England Antiquities," and therefore its preservation is assured—barring only the unfortunate accident of fire—for many years yet to come.

The building now faces east, fronting closely on the

"Old Bay Road," or High Street, only a few hundred feet beyond the more retired Coffin homestead. It has two front doorways, the one to the left admitting to the older portion. The two rooms on the first and second floors—at the left of and beyond this doorway—were the original house, then fronting south, with chimney at the west end and doorway and stairs to the south of it, in the southwest corner, with a slight front second-story overhang.

THE JACKMAN-WILLETT HOUSE—1696—NEWBURY OLD TOWN, MASSACHUSETTS

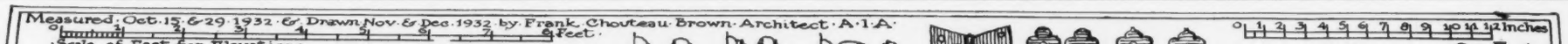
The ridgepole then ran from east to west; and this portion was built by Stephen Swett, at least as early as 1670. It may even have been several years older than that, as the chamfers on the timbers are very like those in the oldest part of the Coffin house. The frame shows where two and three mullion casement windows were set, one of these being about where the fireplace and chimney are now on the north side of the old "Hall."

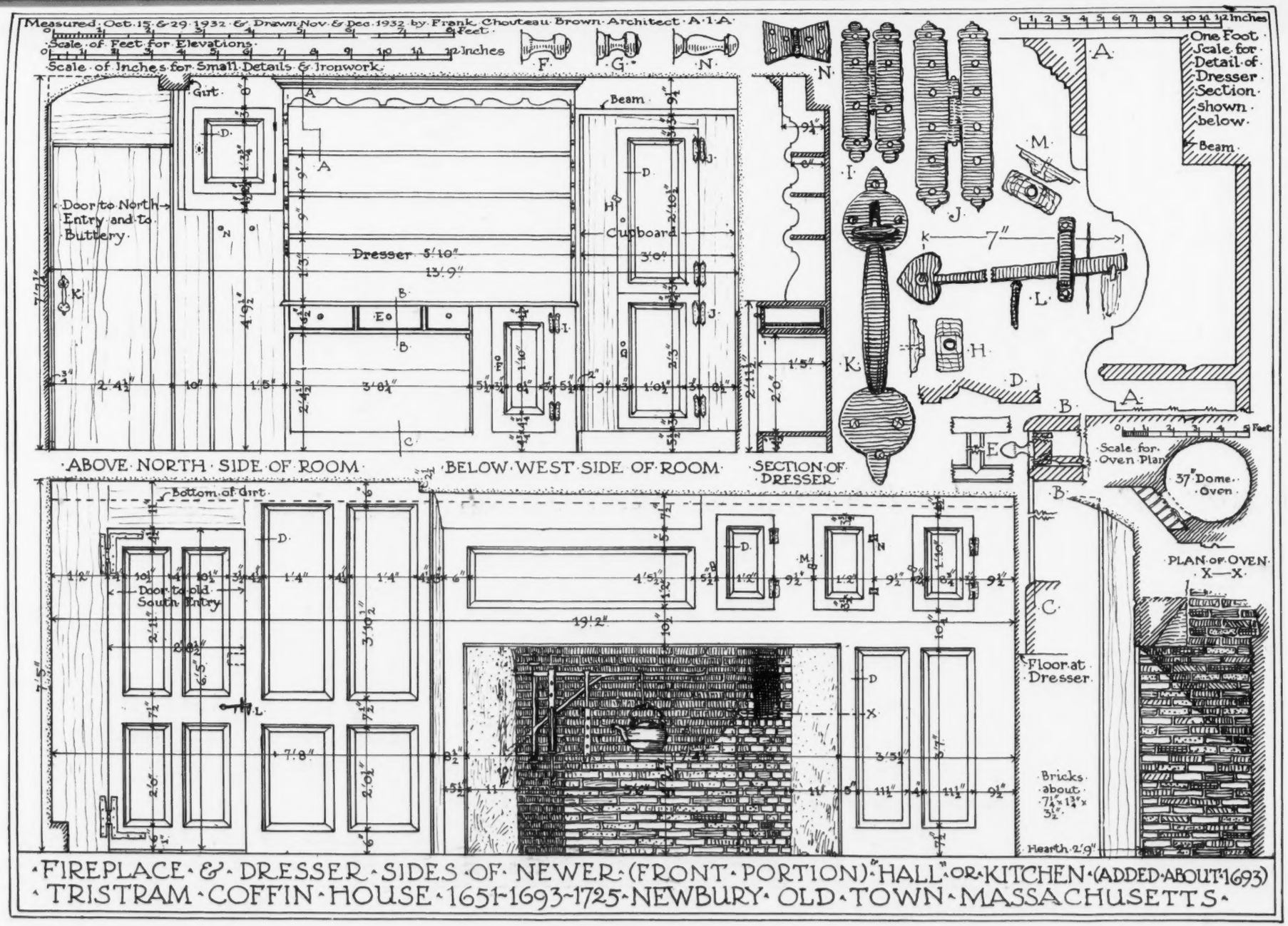
The next and most important change was made previous to 1700, probably between 1690 and 1695, when what is now the middle room was built at the north of the older house, with a chimney between the old part and the addition. A new stairway was built against the eastern face of this chimney. The old west chimney was torn down; and a small corner fireplace built against the west side of the new chimney to heat the small room that occupied the space previously taken by chimney and staircase; and the ridgepole was changed to run from north to south instead of from east to west, as it had originally. The rear (west) "leanto" was built on, probably between 1756 and 1760, to provide a new kitchen back of the large "Hall," with its enormous fireplace, one of the largest of the period now known in Massachusetts. And it is this room, or rather its south side with its unusual large fireplace, that is shown in detail in the measured drawing on page 27.

This middle room with its enormous fireplace has in its rear or western end a door and sashed opening that formerly connected with the serving "bar," during that portion of the structure's existence when it was in use as the Blue Anchor Tavern; this room then being the Tap Room, and the room in the leanto behind being the Kitchen—in substantiation of which

[20]

THE TRISTRAM COFFIN HOUSE—1651-1693-1725—NEWBURY OLD TOWN, MASSACHUSETTS




Measured Oct. 15 & 29 1932 & Drawn Nov. & Dec. 1932 by Frank Chouteau Brown Architect A.I.A.
Scale of Feet for Elevations
Scale of Inches for Small Details & Ironwork
Gut
Beam
Door to North Entry and to Buttery
Dresser 5'10"
13'9"
Cupboard
3'0"
ABOVE NORTH SIDE OF ROOM
BELOW WEST SIDE OF ROOM
SECTION OF DRESSER
Bottom of Girt
Door to old South Entry
19'2"
Floor at Dresser
Bricks about 7¼" x 13¾" x 3½"
Hearth 2'9"
One Foot Scale for Detail of Dresser Section shown below
Scale for Oven Plan
37" Dome Oven
PLAN OF OVEN X—X
FIREPLACE & DRESSER SIDES OF NEWER (FRONT PORTION) "HALL" OR KITCHEN (ADDED ABOUT 1693)
TRISTRAM COFFIN HOUSE 1651-1693-1725 NEWBURY OLD TOWN MASSACHUSETTS

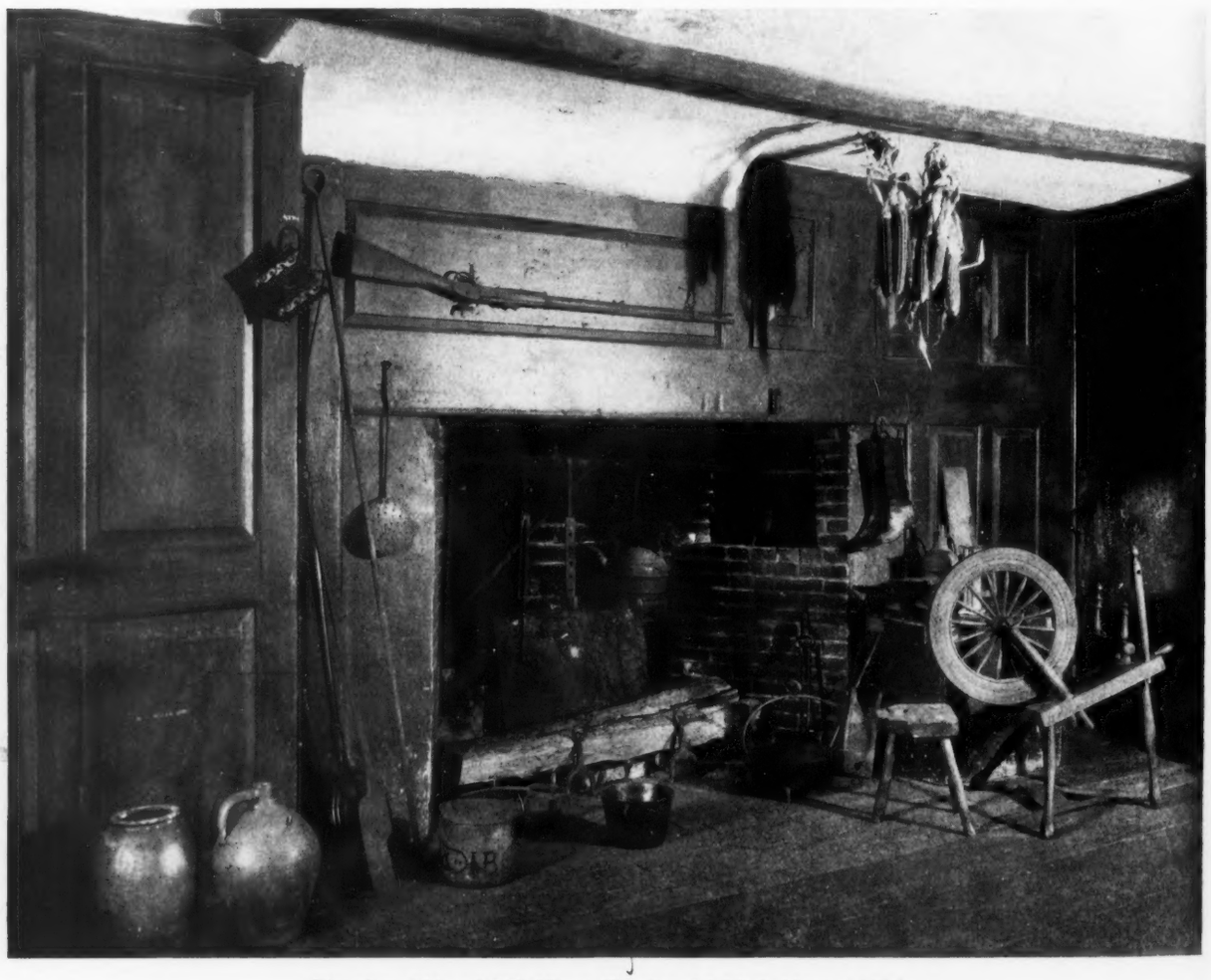
arrangement there still exists built into the front angle of this space, the remains of the old wall cupboard, of which the intermediate Kitchen of the Coffin House still shows so good an example, the invariable adjunct of the Seventeenth Century Kitchen!

The house did not come into the possession of the Ilsley family until 1797. Meanwhile, during, and for a while previous to, the Revolution, it had served as an Inn; seen the training of local companies of militia; watched the progress of the French and Indian wars (the Merrimac River being really the northern frontier of the New England settlements at that time) and had at least one owner, John March, who was a captain in the attack on Canada in 1700, and later helped defend the Casco Bay fort against the French.

Still further to the north, the door, hallway, and room at its right, is the last addition that was made to the old dwelling—probably shortly after 1800. Fortunately this was accomplished without any more disturbance than the closing of a few windows and the opening of a doorway into what then became the middle room, on both lower and upper floors.

While to the more curious, there is always in reserve the attic; that space that—in New England—has so often been kept inviolate, sacred to the housewives' desire for "order," to which proscribed precincts anything outmoded or otherwise cluttering up the daily wheels of progress may always be exiled. There, amid dust and these ancient family treasures, the timber framing and changes in the house's history usually lie plainly outspread before any interested or trained observer.

Down nearer the original "landing," on the Parker River, are two old structures also worthy attention.



Fireplace Side of "Hall" or Kitchen (Added About 1693)

THE TRISTRAM COFFIN HOUSE, NEWBURY OLD TOWN, MASSACHUSETTS

(Measured Drawing on Page 21)

One, the Richard Dole-Little House, illustrated on page 29, is the simple long leanto dwelling, with its weathered ancient clapboarding, that still looks down toward the banks of the Parker River. Inside it has been much changed about to keep up with the progress and needs of its various families of occupants, but outside it certainly continues to look its years, from 1670, the date of its beginnings.

A little further north, at a sharp turn in the road, is the Samuel Seddon house; once another "Ordinary" on the highroad out of Boston. Built in 1728, its windows are now shuttered; its old central chimney has been taken out and replaced by two smaller ones, in order to gain the room for a central hallway upon the second floor; and its floors are gradually settling and sagging out of true. But, inside, it is still possible to trace the location of the "bar," opening into the Taproom at the left, from near the rear line of the house, though if even this record is to be much longer preserved, steps must soon be taken to maintain the old frame and make the roof tight.

About midway from this old Tavern to the center of Old Newbury, at the left side of the Old Post Road, is the location of the original Burying Ground, and beside it now is the Jackman-Willett house.

Richard Jackman was the youngest son of James Jackman, the immigrant, who died in 1694, when Richard had been married thirteen years. When his father's estate was settled the following year, he built his new house, which was finished in 1696. He had married Elizabeth Plummer, and when her father—who had the ferry at the Parker River—died in 1702, Corporal Richard Jackman was appointed, on Septem-

(Continued on page 30)

Dresser Side of "Hall" or Kitchen (Added About 1693)

THE TRISTRAM COFFIN HOUSE, NEWBURY OLD TOWN, MASSACHUSETTS

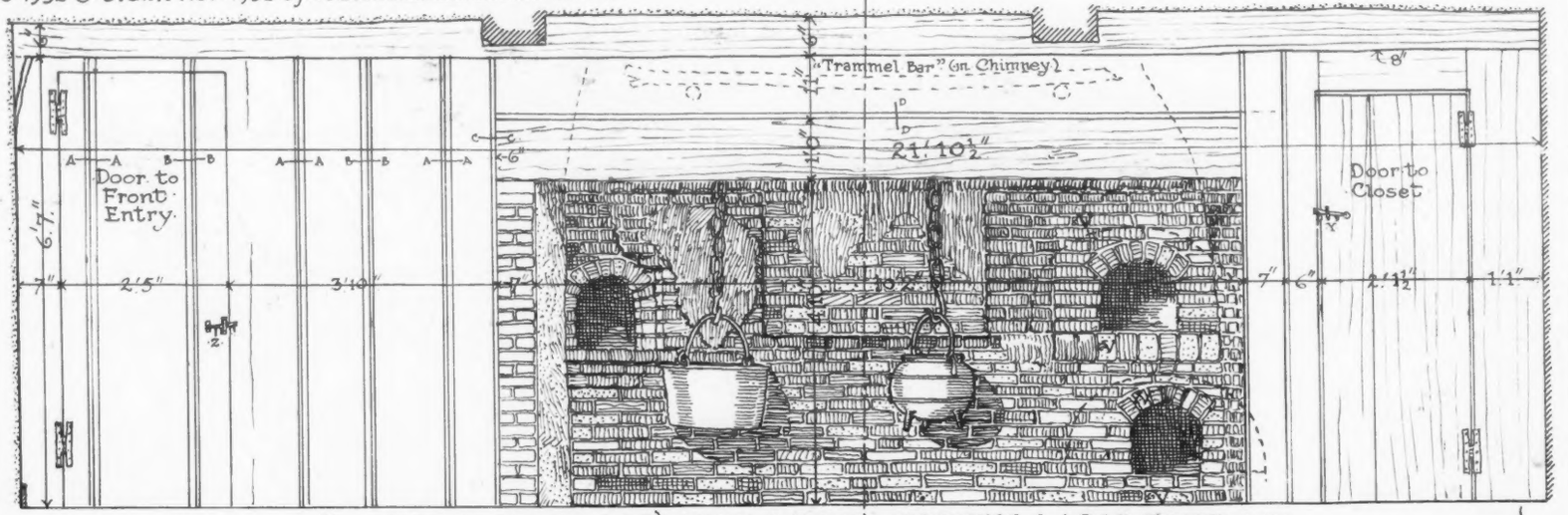
(Measured Drawing on Page 21)

THE TRISTRAM COFFIN HOUSE, NEWBURY OLD TOWN, MASSACHUSETTS—BUTTERY AND BEDROOM

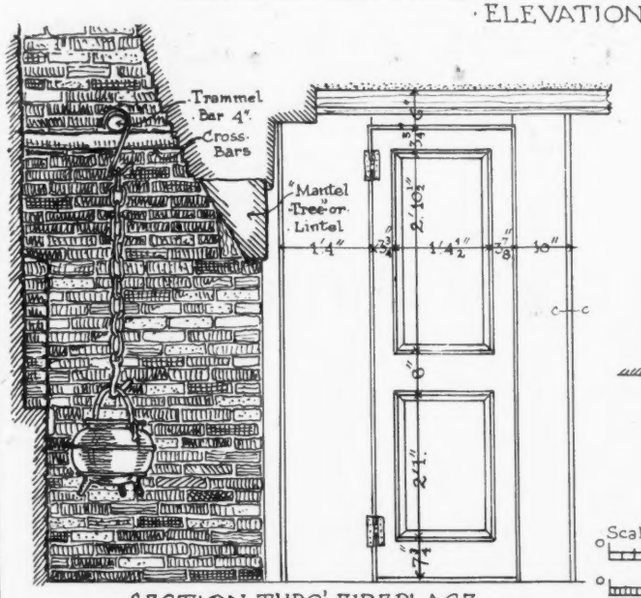
[24]

THE SWETT-ILSLEY HOUSE—1670-1700-1760—NEWBURY OLD TOWN, MASSACHUSETTS

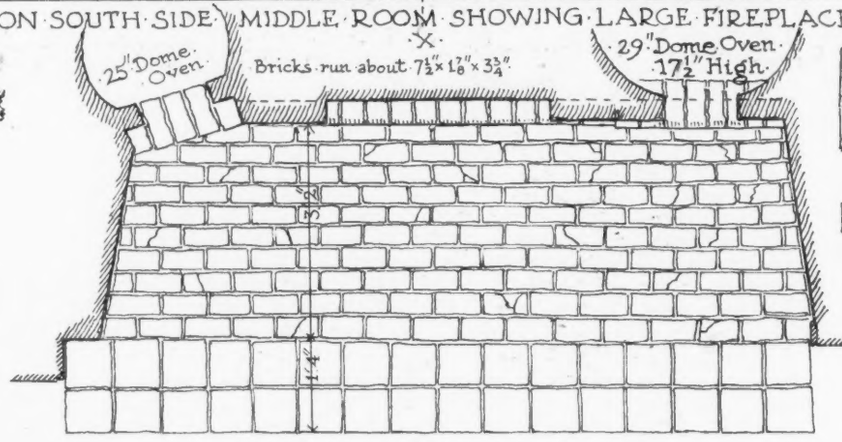
Measured Oct. 15 1932 & Drawn Nov. 1932 by Frank Chouteau Brown Boston



ELEVATION SOUTH SIDE MIDDLE ROOM SHOWING LARGE FIREPLACE

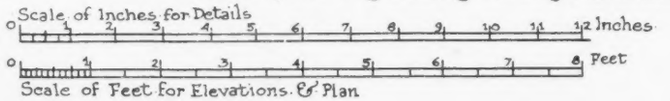


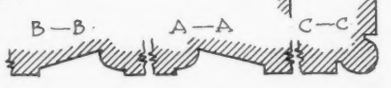
SECTION THRO' FIREPLACE X—X



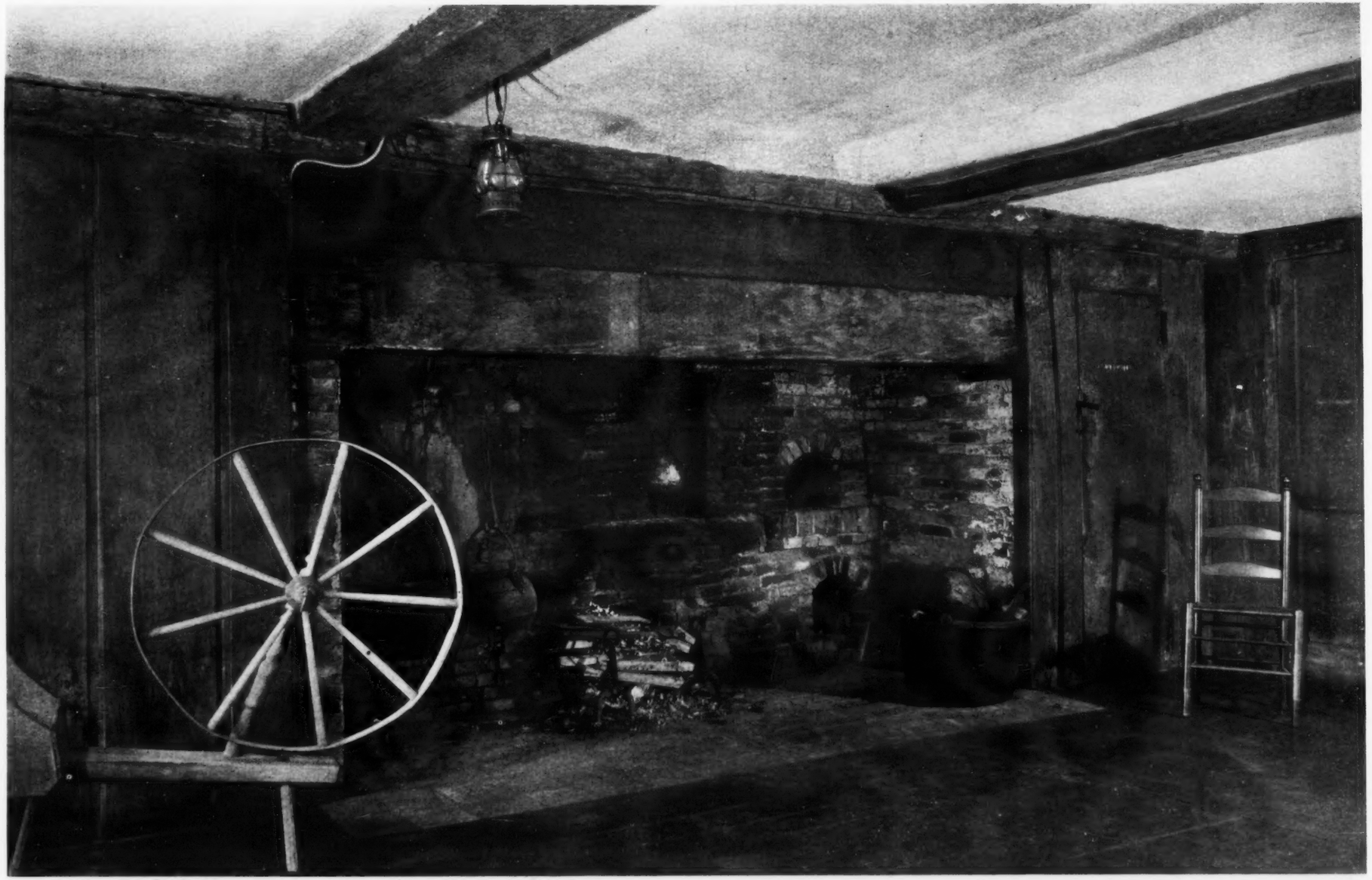
PLAN OF FIREPLACE & HEARTH

The right hand end of this Fireplace has been restored. The portions replaced being at the right of the joints marked thus "V"



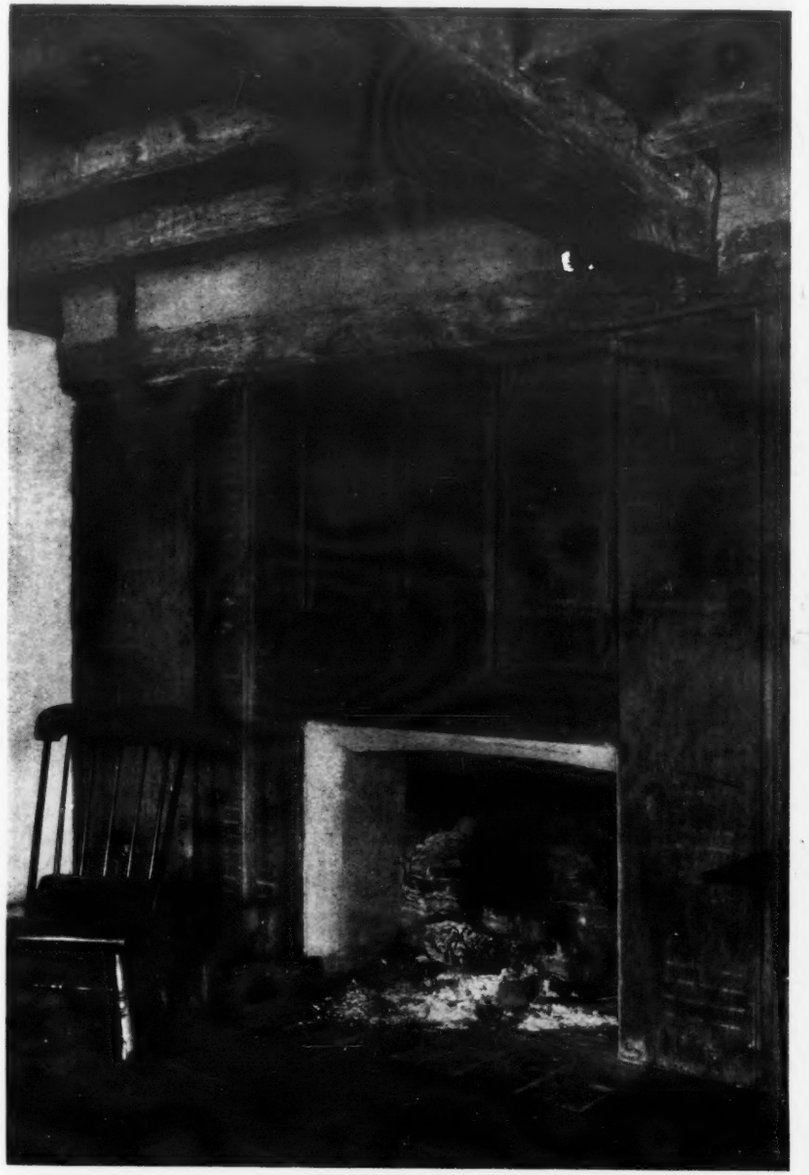


FIREPLACE IN MIDDLE ROOM (1695~1700) USED AS TAPROOM WHEN "THE BLUE ANCHOR TAVERN" SWETT~ILSLEY HOUSE 1670~1700~1760 HIGH STREET NEWBURY OLD TOWN MASSACHUSETTS



Fireplace in Middle Room (1695-1700) Measured Drawing Above.

THE SWETT-ILSLEY HOUSE—1670-1700-1760—HIGH STREET, NEWBURY OLD TOWN, MASSACHUSETTS



Fireplace

Stairway

THE SWETT-ILSLEY HOUSE—1670-1700-1760—NEWBURY OLD TOWN, MASSACHUSETTS

THE RICHARD DOLE-LITTLE HOUSE—1670—NEWBURY OLD TOWN, MASSACHUSETTS

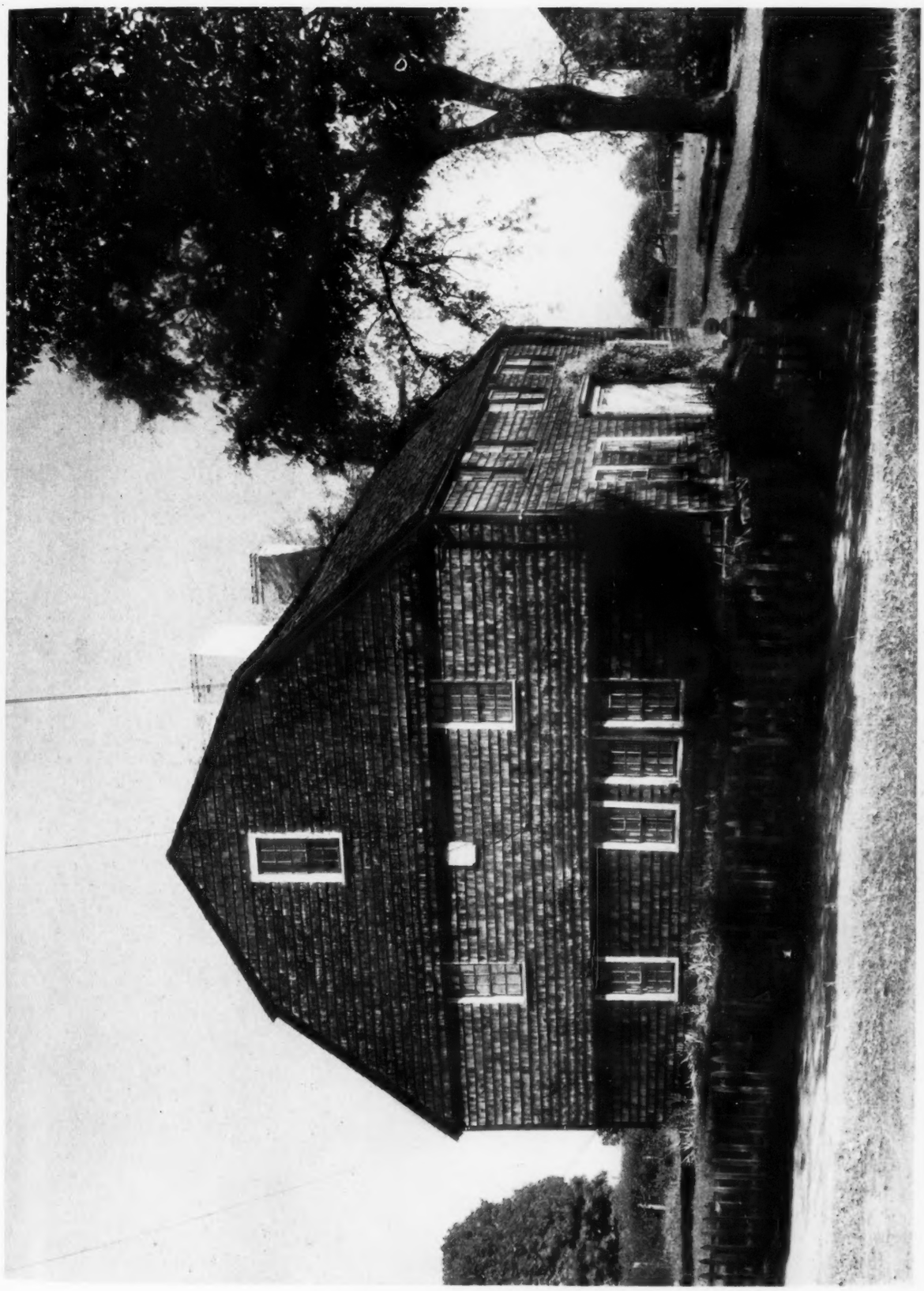
ber 16, 1702, to "keep the ferry over Oldtown river, alias ye River Parker." At that time he was living in his new house, on a lot on the "Ferry Road," across the street from the Seddon place.

By the summer of 1930 the little house had become so dilapidated that, when the "Sons and Daughters of the First Settlers of Newbury" undertook to put it into repair, as the oldest surviving primitive cottage then available, it was decided to move it a mile or so up the Post road to a position beside the original Burying Ground, about midway between the "Landing" and the "Lower Green." The cottage probably still shows its original outlines, though the work on the interior had not been completed at the time these pictures were taken. The old chimney had not then been rebuilt, but the quaint window trim and heads, the clapboarding and "jet" finish had been carried out along the old lines, so that a very good idea of the appearance of one of the simpler types of early cottage-houses of this locality is there to be obtained.

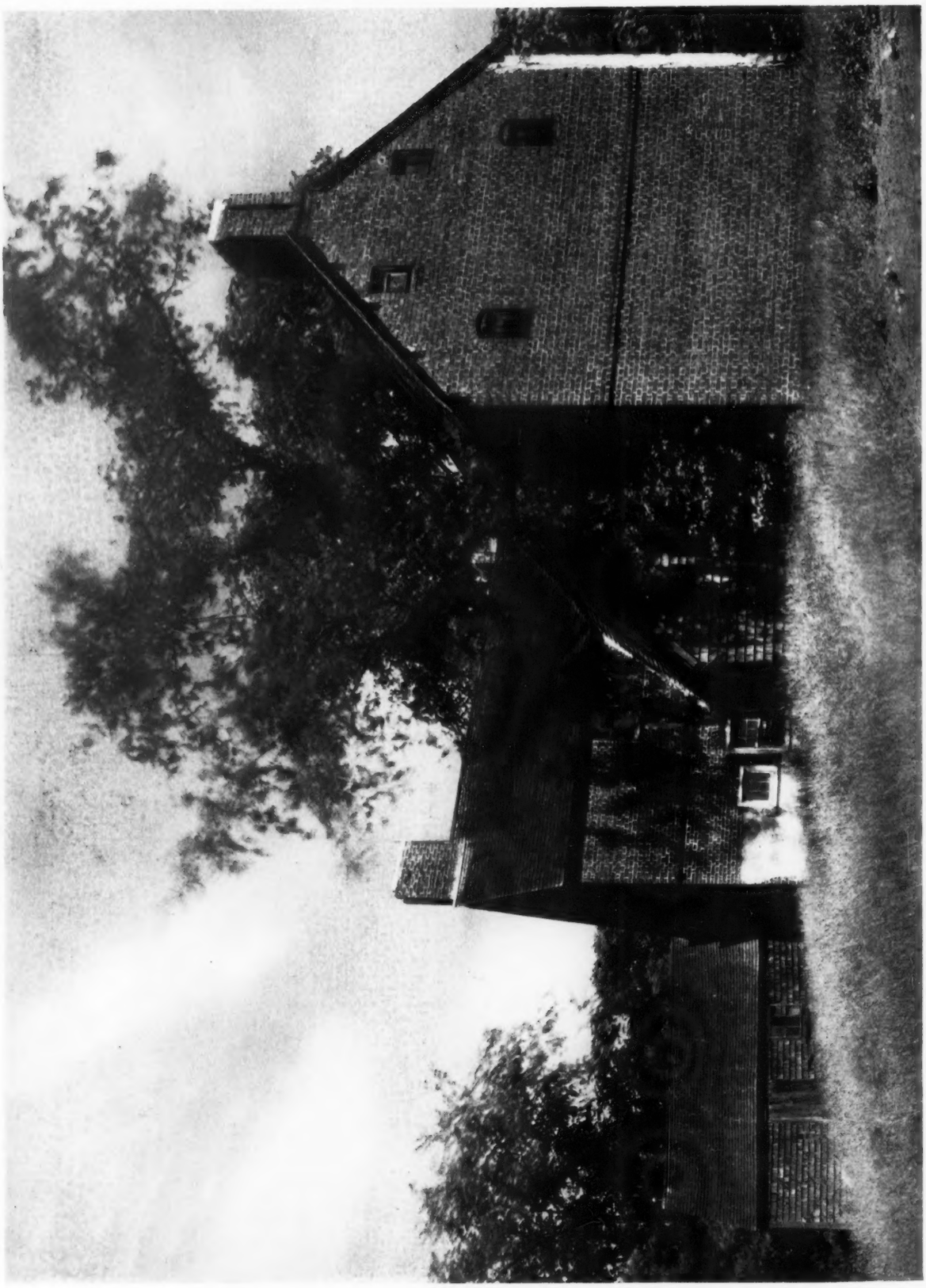
Again continuing north toward the "Lower Green" and "the Port," the Dr. Peter Toppan house, of 1697, may be seen almost directly across the Highway from the Swett-Ilsley place. It displays one of the most imposing "gambrels" of the locality, although the walls have been covered with new shingles, and the dwelling —for some time housing two families—has but recently been brought back to its single family appearance. Probably it could assume a well deserved place in a sequential record illustrating the development of the New England gambrel roof; but, located so closely adjacent to the Swett-Ilsley and Tristram Coffin houses, it cannot but be preferably grouped with them; leaving only the better known and distinctively different architecture of the Short House waiting for some later—and fuller—presentation; which, perhaps along with the Spencer-Pierce-Little house, its beauty and individuality entitle it to receive.

THE NOYES HOUSE—ABOUT 1645—NEWBURY OLD TOWN, MASSACHUSETTS

[30]



THE DR. PETER TOPPAN HOUSE—1697—NEWBURY OLD TOWN, MASSACHUSETTS



GARRISON HOUSE—DR. PEASLEE—ROCK VILLAGE, MASSACHUSETTS

[32]

Comparative Details—Group 7
Chimneys

Prepared for Pencil Points by Courtesy of the New York Architects' Emergency Unemployment Committee

Drawings by Alfred J. Bagley from Data Supplied by the Architects

THE ARCHITECTS
whose details are shown on this and the succeeding pages are as follows:

BRADLEY DELEHANTY
WILLIAM F. DOMINICK
FRANK J. FORSTER & R. A. GALLIMORE
BERTRAM G. GOODHUE & GOODHUE ASSOCIATES
HOPKINS & DENTZ
HARRIE T. LINDEBERG
BERNHARDT E. MÜLLER
EDGAR I. WILLIAMS

DETAILS PREVIOUSLY PUBLISHED

Dormers . . October, 1932
Fences and Gates November, 1932
Radiator Enclosures December, 1932
Second Story Overhangs January, 1933
Fireplaces . February, 1933
Door Hoods . March, 1933

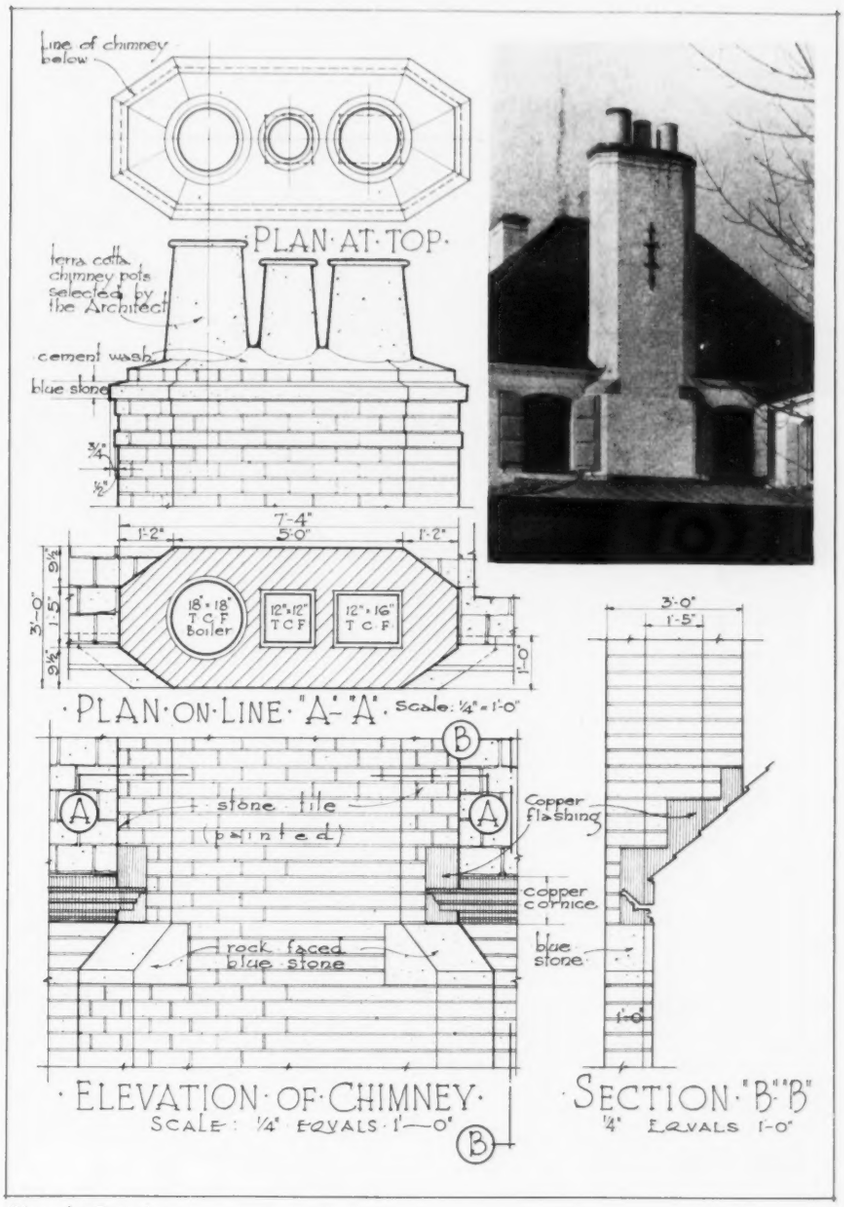


Photo by Gottscho

RESIDENCE OF CARROLL B. AIKER, ESQ., BROOKVILLE, LONG ISLAND, N. Y.
Bradley Delehanty, Architect

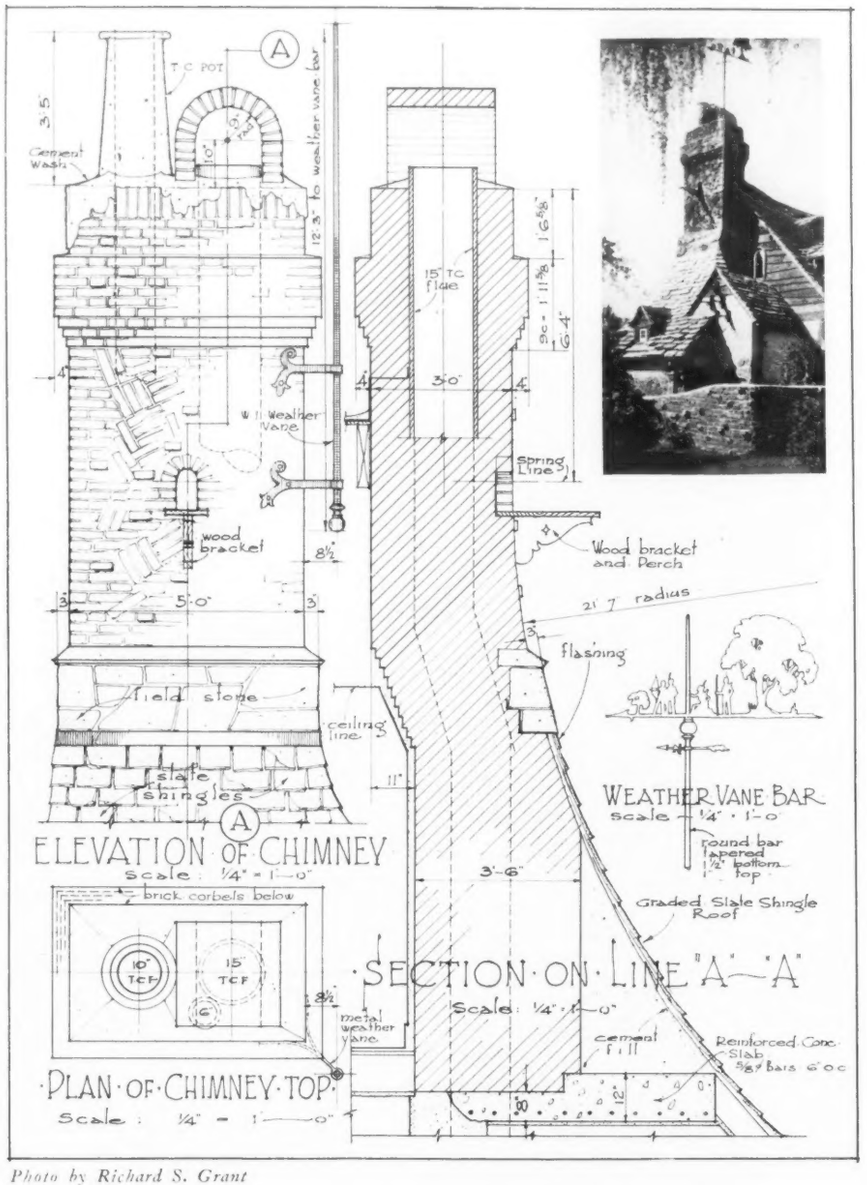


Photo by Richard S. Grant

ROBIN HOOD COTTAGE, OLD SHORT HILLS, NEW JERSEY

Bernhardt E. Müller, Architect

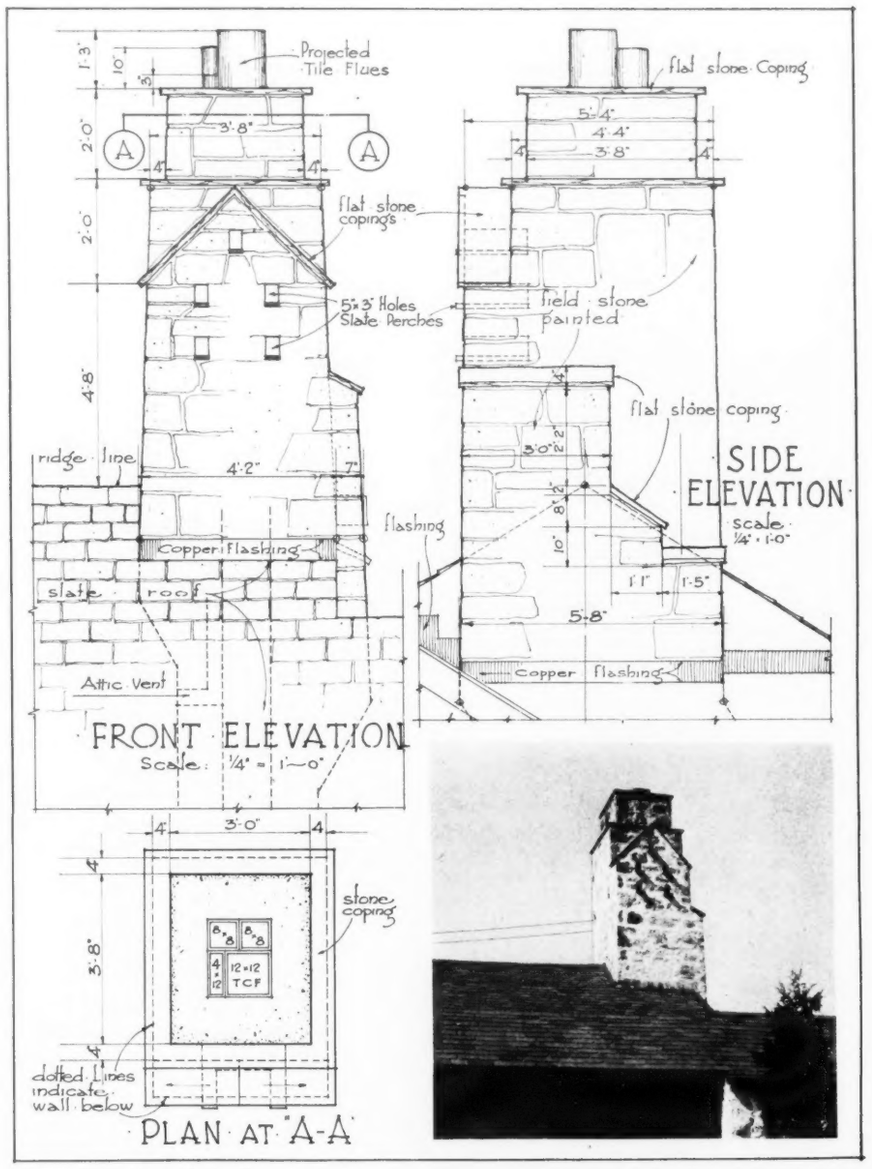


Photo by Tebbs and Knell

FARM BUILDING FOR WALTER DOUGLAS, ESQ., DOBBS FERRY, NEW YORK

Hopkins and Dentz, Architects

Bernhardt E. Müller, Architect

Hopkins and Dentz, Architects

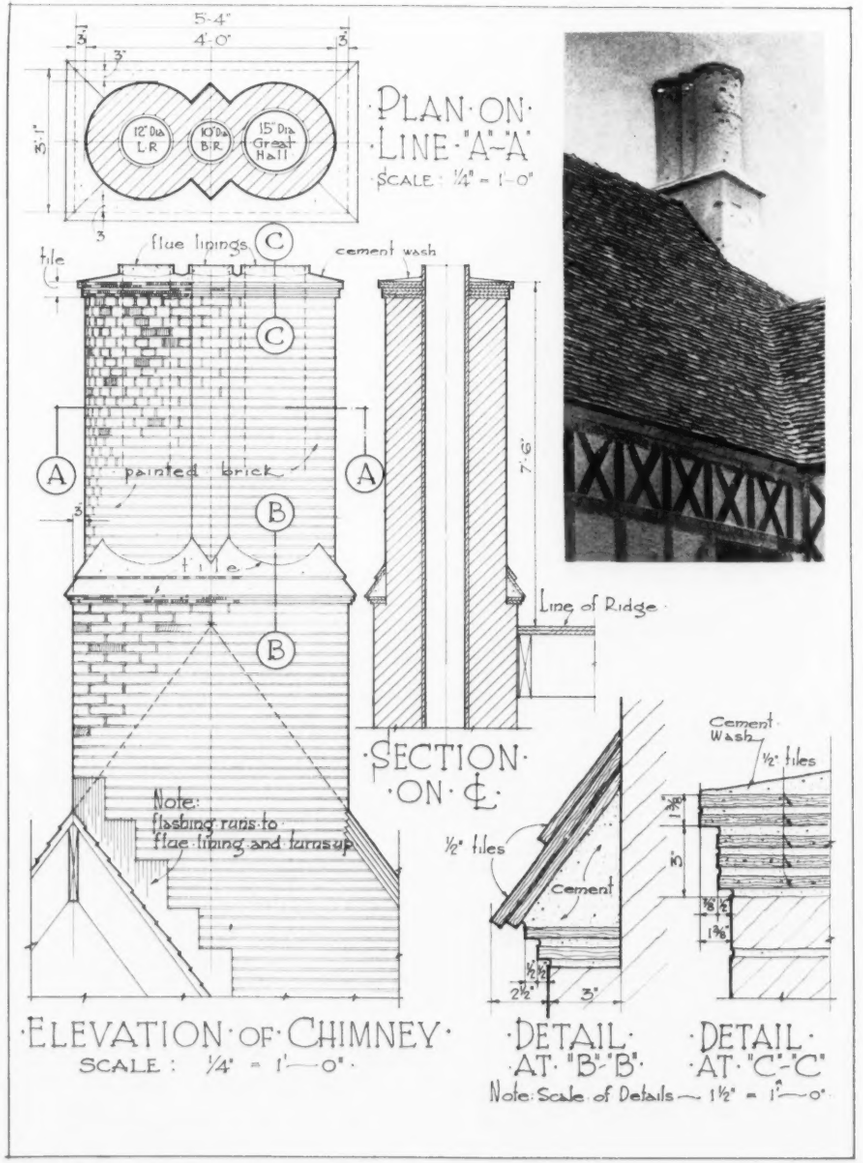


Photo by R. M. Luster

RESIDENCE OF HAYWOOD NELMS, ESQ., HOUSTON, TEXAS

Frank J. Forster, Architect

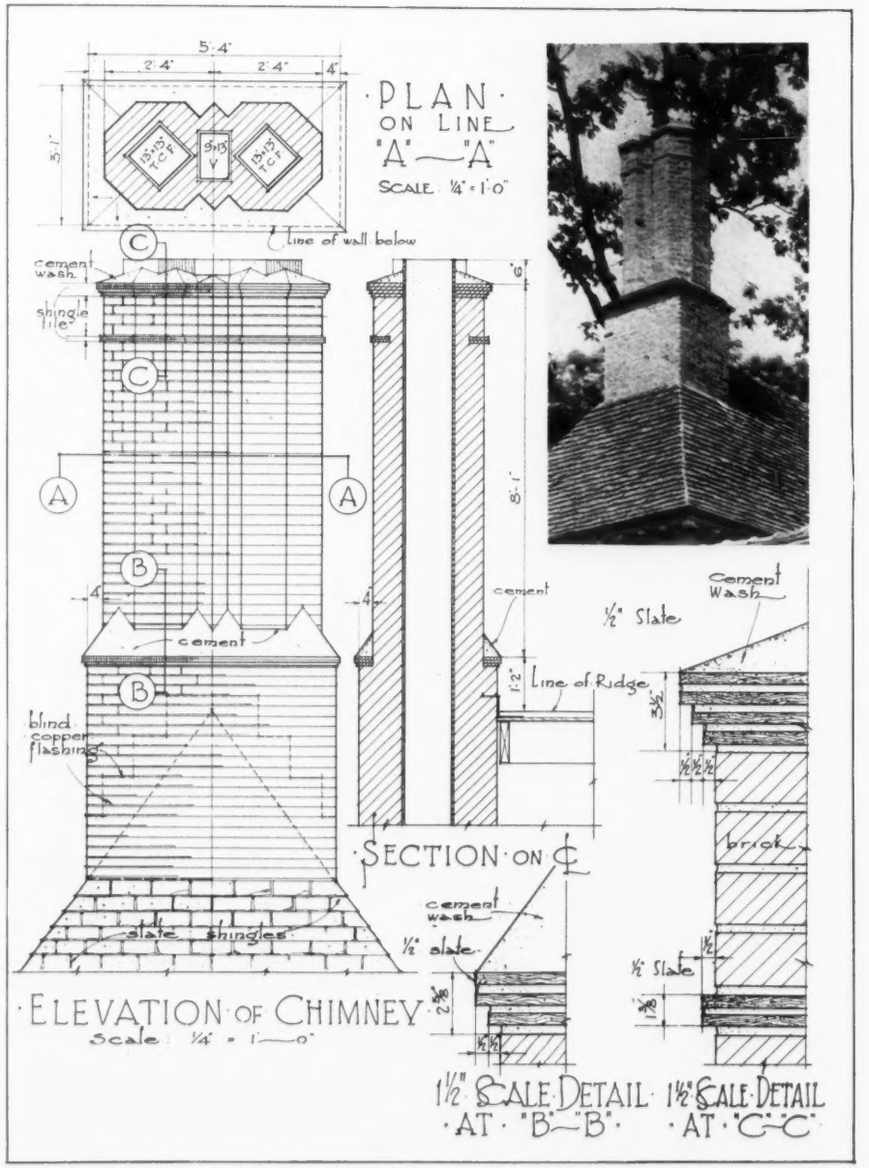
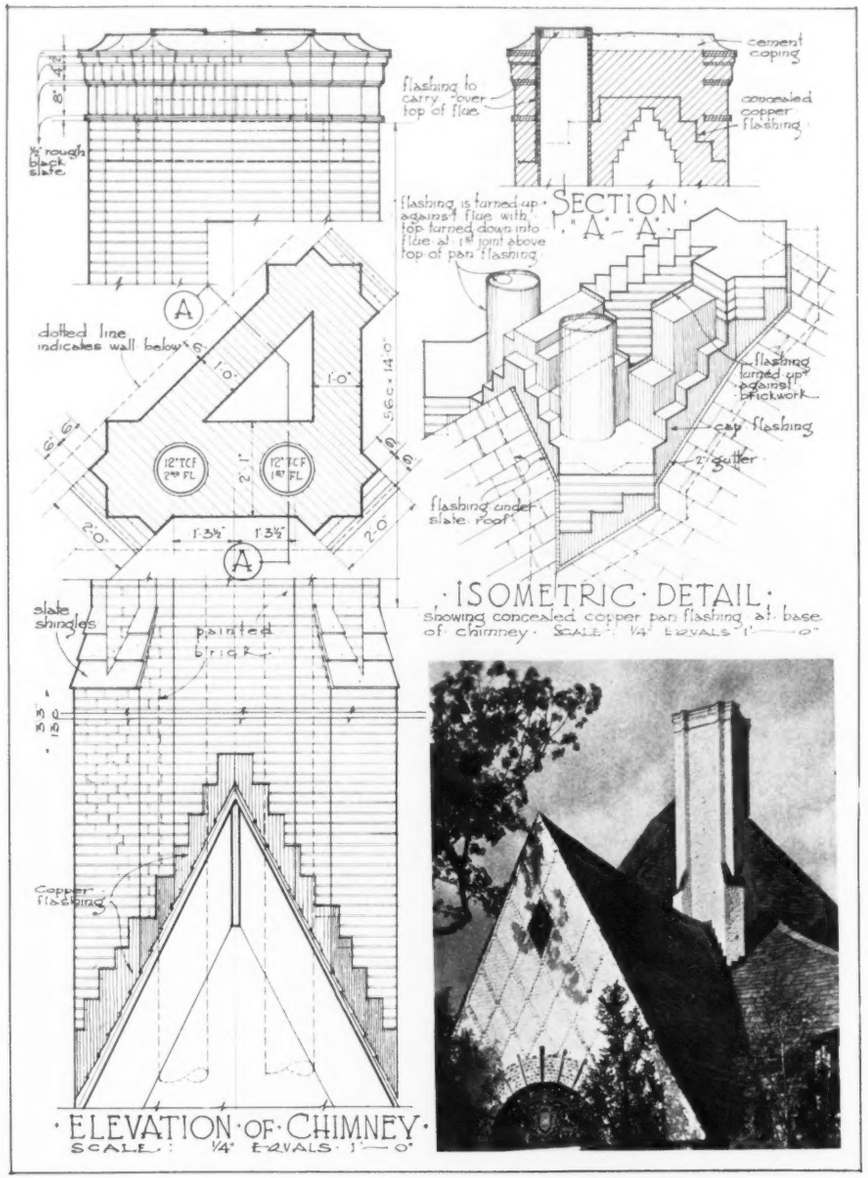


Photo by Glasgow

RESIDENCE OF G. BROWNING, ESQ., GREENWICH, CONNECTICUT

Frank J. Forster and R. A. Gallimore, Architects


cement coping
flashing to carry over top of flue
concealed copper flashing
½" rough black slate
SECTION "A"–"A"
flashing is turned up against flue with top turned down into flue at 1st joint above top of pan flashing
dotted line indicates wall below
12" TCF 2nd FL
12" TCF 1st FL
flashing turned up against brickwork
cap flashing
2" gutter
flashing under slate roof
ISOMETRIC DETAIL
showing concealed copper pan flashing at base of chimney. SCALE: ¼" EQUALS 1'—0"
slate shingles
painted brick
Copper flashing
ELEVATION OF CHIMNEY
SCALE: ¼" EQUALS 1'—0"

RESIDENCE OF CLYDE M. CARR, ESQ., LAKE FOREST, ILLINOIS

Harrie T. Lindeberg, Architect

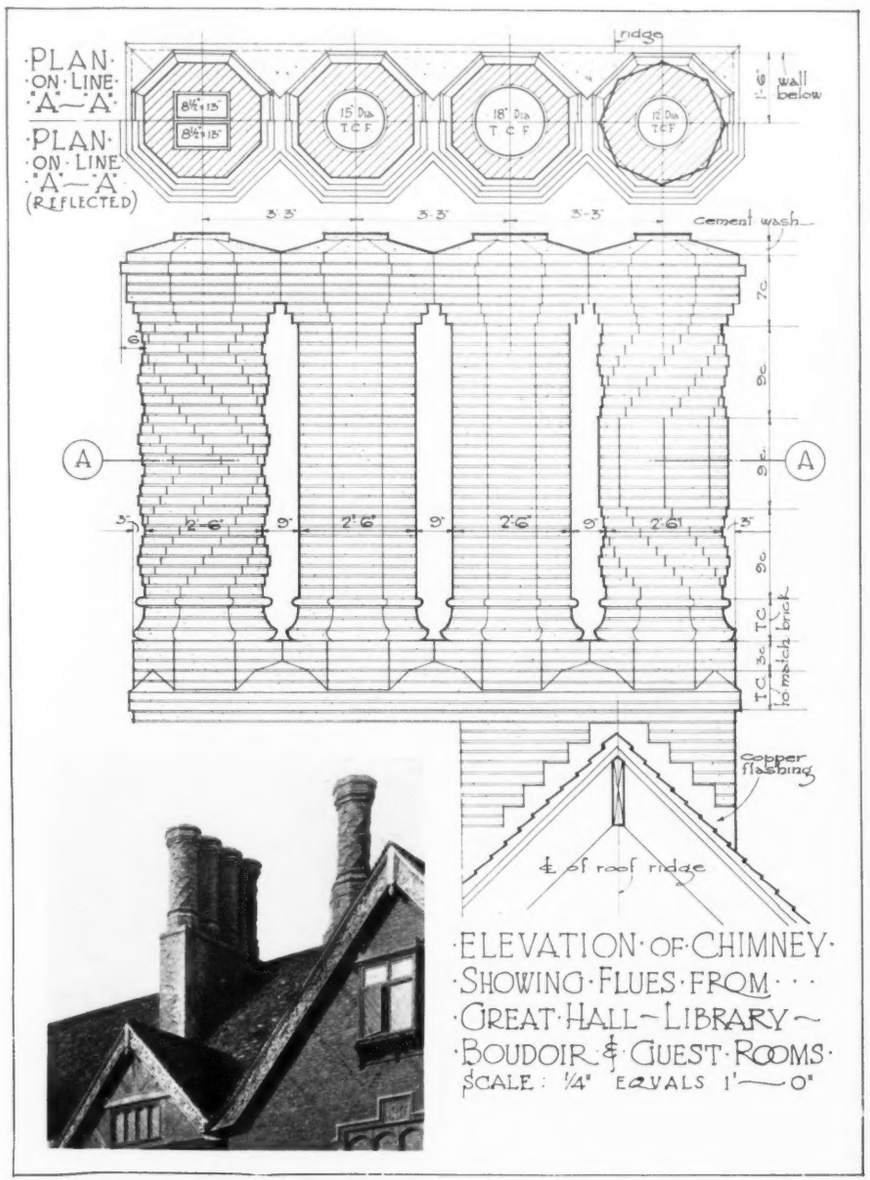


Photo by Mattie E. Hewitt

RESIDENCE OF MRS. CHRISTIAN R. HOLMES, SANDS POINT, LONG ISLAND, N. Y.

Edgar I. Williams, Architect

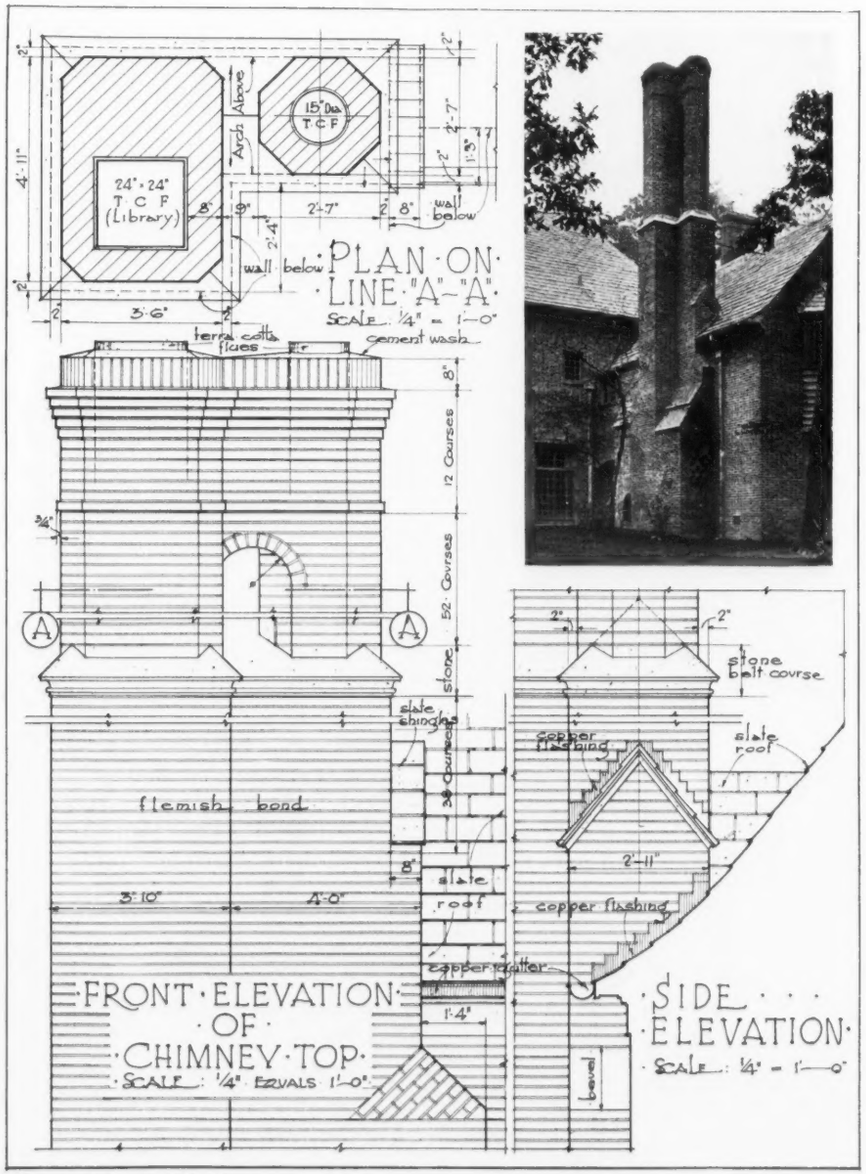


Photo by Kenneth Clark

RESIDENCE OF WILTON LLOYD SMITH, LLOYD NECK, LONG ISLAND, N. Y.

Bertram Grosvenor Goodhue and B. G. Goodhue Associates, Architects

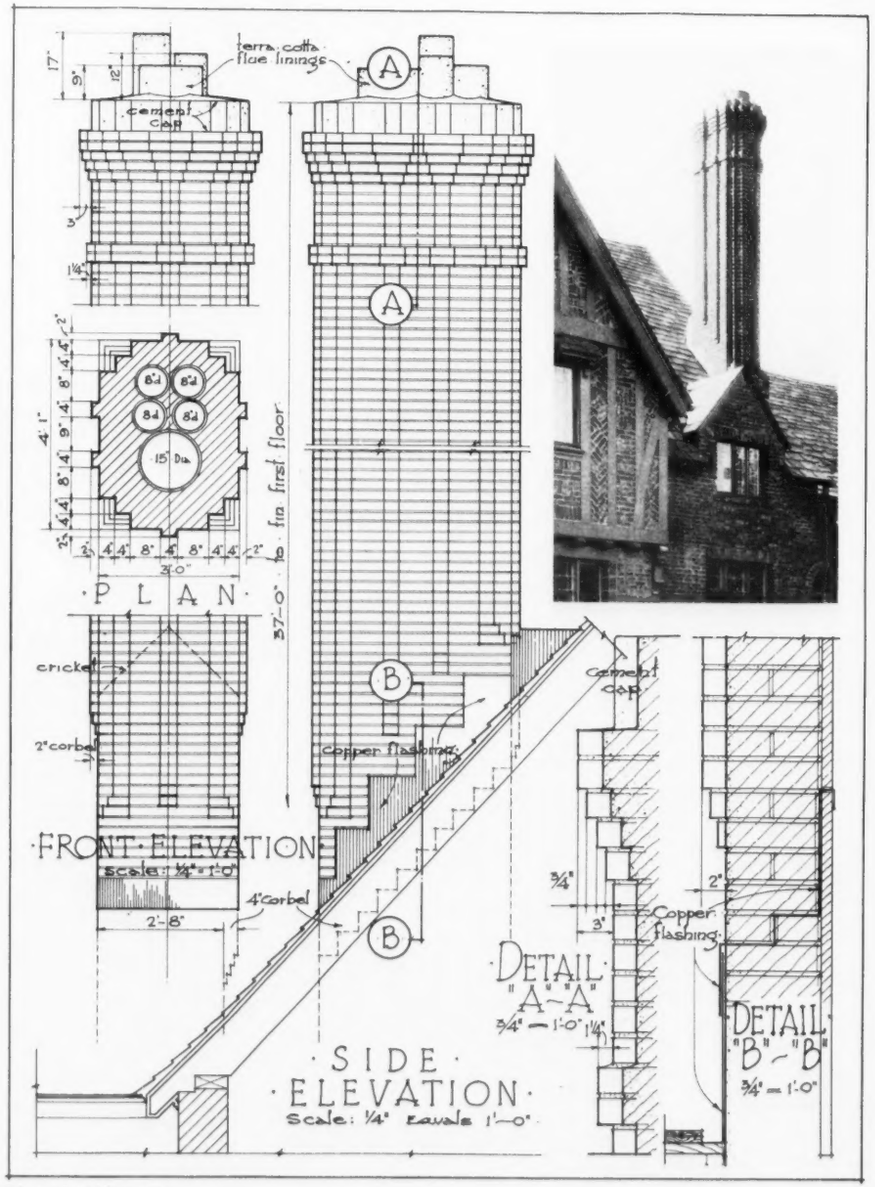


Photo by Glasgow

RESIDENCE OF FRANK H. FILLEY, ESQ., GREENWICH, CONNECTICUT

William F. Dominick, Architect

THE SPECIFICATION DESK

Whys and Wherefores of the Specification

17—Miscellaneous Iron, 2

By Philip G. Knobloch

Editor's Note:—*In this series, which started in the October, 1930, issue of* Pencil Points, *Mr. Knobloch is taking a specification actually used by him on a definite job as a basis for his discussion of the "Whys and Wherefores of the Specification." The actual specification used for the job is printed in italics followed by the author's explanation as to why the different materials and methods of construction were specified. Where necessary to make the points more clear, Mr. Knobloch has made detail drawings showing the construction. The parts of the specification which have already appeared are: "Introduction," "Demolition and Excavating," "Concrete Work," "Masonry," "Structural Steel," "Granite—Limestone—Bluestone," "Roofing and Sheet Metal Work," "Carpentry," "Tile Work," "Interior Marble, Slate, and Structural Glass," and "Plastering," and the first part of "Miscellaneous Iron."*

Letters from our readers commenting upon the series will be welcomed.

Door Frames

Exterior or interior doors shall be similarly constructed of rolled steel shapes, or cast and wrought iron as indicated on Contract Drawings, and be prepared to receive doors, transoms or other sash as indicated on the drawings.

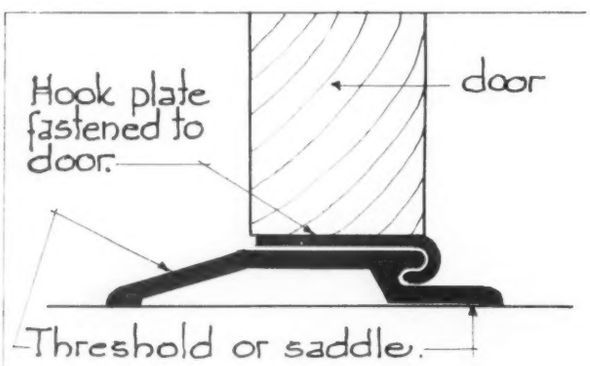
Integral Door Buck and Trim

As manufactured by the ————————, of sizes as noted on drawings and types and designs as follows ————.

These should be listed in detail or covered with a schedule.

The combined buck and trim make it unnecessary to use separate buck for supporting partitions and securing doors.

If there are a sufficient number of openings the manufacturer will furnish special rolled designs without extra cost.



•INTERLOCKING•
•THRESHOLD•
•FIGURE•III•

The question of fastening hardware always arises with use of this trim. One method to follow is first to determine definitely what hardware will be used so that the frame and the hardware reinforcement can be drilled according to the proper templet and forwarded to this manufacturer by the hardware contractor.

The best method is to ship the hinge butts and strike plates to the manufacturer who will attach them, usually without cost.

These buck and trim units come equipped with anchors that form a bond with the masonry partition and hold the unit securely.

Saddles

Shall be as manufactured by the ————————. Type number ————.

Saddles shall be secured in place with counter-sunk screws and expansion bolts.

Where saddles are called for in connection with doors equipped with floor checking hinges they shall be of a width sufficient to receive the hinge box and provided with the necessary cut outs, recesses, and screw holes.

Saddles under doors fitted with bottom pivots shall be accurately cored or drilled to receive the pivots.

Specifying the type and manufacturer's name automatically describes what is desired. It tells whether they are to be grooved or checkered surface, notes the thickness required and if they are to be of the interlocking type, and so on. See Figure III.

Sidewalk Doors

Doors to be as manufactured by ———————— of size as indicated on the Contract Drawings.

These doors usually have a 3″ or 4″ channel frame below the supporting angle frame which forms a gutter to catch rain water and prevent it from running into the pit. For a very fine job, this frame can be tapped (some are) and a small pipe connected and run to a nearby drain affording constant drainage for this gutter. See Figure IV.

Coal Hole Frames and Covers

Coal hole frames and covers shall be of the sizes and shapes as indicated on Contract Drawings.

Where round openings are called for or indicated the frames shall consist of cast iron rings having a flange not less than four (4) inches wide set to bear on the structural slab or walls and vertical ring extending to and finishing flush with the pavement. This vertical ring shall be cast with a continuous seat to receive the cover. The cover shall be cast with a checkered surface and be provided with a countersunk lifting ring.

Where square or rectangular openings are specified or indicated the frames shall be built up as specified for sidewalk doors, but without condensation gutters.

Grade Line Coal Chutes

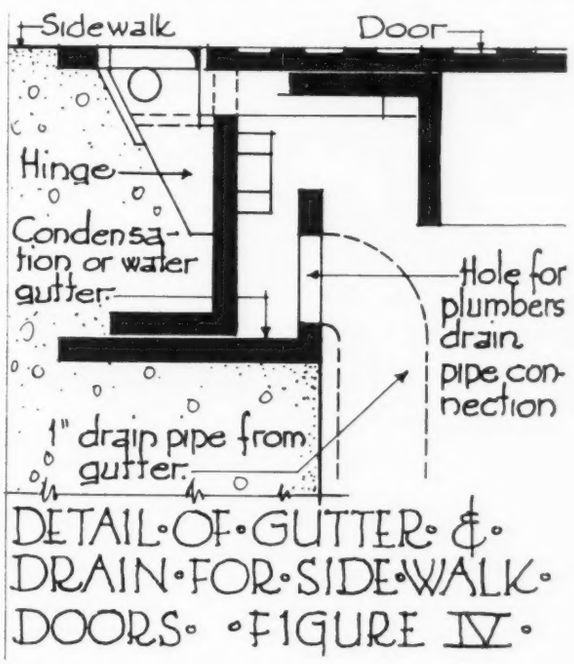
Grade line coal chutes shall consist of malleable iron frames, checkered iron doors, fitted with steel side wings forming a hopper. The frame shall be provided with a steel chute increasing in size from frame to outlet and of sufficient length to extend entirely through masonry wall of coal room.

The doors shall be designed to lock automatically when closed and be provided with a release accessible from the coal room. See drawings for size.

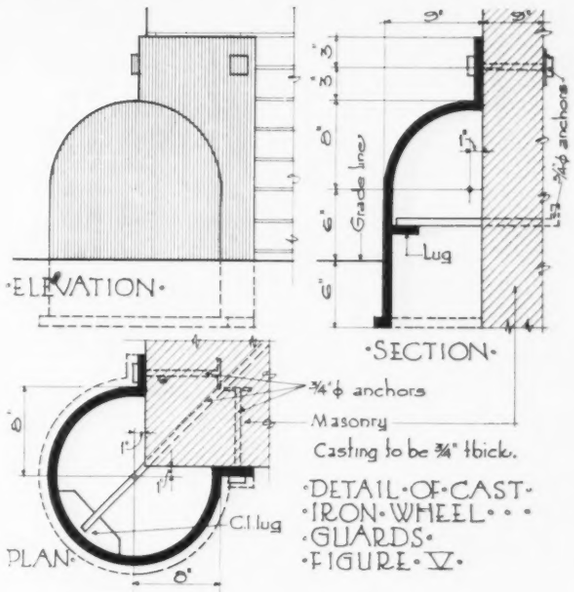
Wall Type Coal Chutes

Where coal openings in walls are indicated on Contract Drawings to be provided with iron frames and doors, the frames shall be constructed of cast iron or steel welded solid at corners and arranged to build into masonry walls. The frames shall be provided with steel or cast iron doors, with automatic locking device, accessible release and hopper. See drawings for size.

When glazed doors are specified or shown they shall be fitted with rough wire glass and provided with a steel plate arranged to cover the glass when the door is open, and leave the glass unobstructed when closed, with flush wrought iron hinges and side wings of 3/16" steel plates arranged to form a chute when the door is opened to the vertical. The door shall be equipped with a countersunk flush lifting handle and, on the underside, with a locking device operated from an accessible point within the building.



DETAIL OF GUTTER & DRAIN FOR SIDEWALK DOORS. FIGURE IV.



DETAIL OF CAST IRON WHEEL GUARDS. FIGURE V.

Either of the above paragraphs on chutes could be covered by specifying a manufacturer's name.

Manhole Frames and Covers

Manhole frames and covers shall be of the sizes as indicated on the Contract Drawings.

The frames shall be cast with a bearing flange and vertical ring with seat as specified for round coal hole frames. The covers shall have a checkered surface, be provided with a lifting device, perforated for ventilation or constructed air and water tight.

Where manholes are located in roadways or places subject to vehicular traffic the frames and covers shall be of extra heavy construction designed to withstand heavy trucking loads.

Where drawings do not show sizes, include them in the specifications.

Clean-out Doors

Clean-out doors and frames shall be of sizes indicated on the Contract Drawings. The frames and doors shall be of cast iron with hinges and latch cast integrally and provided with anchors for building into the masonry.

Flagpole

Furnish and erect flagpole where shown on drawings. It shall be of height indicated on drawings with butt and tip diameters of the nearest standard size to diameters shown. It shall be constructed of standard wrought steel pipe of successive diminishing diameters with sections swaged, telescoped and shrunk according to the best practice in flagpole construction.

Each pole shall be provided with a suitable pole socket, base plate, or both, as may be required by roof construction conditions and be braced with either round steel tension rods or steel tubular turnbuckle or telescope braces as may be recommended by the manufacturer. Where braces penetrate waterproofing of roof they shall be provided with flashing collars.

Each pole shall be provided with an adjustable metal flashing collar secured to the pole with set screws and caulked. The tip of the pole shall be closed off weathertight and fitted with two bronze pulleys provided with bronze roller bearings, and shall be surmounted by a pro-

portionate, spun, 20 oz. copper ball. The copper ball shall be acid cleaned, sized with waterproof sizing and finished with 23 kt. gold leaf. The ball shall be supported by a 3/4" diameter brass tube, telescoped over a brass jacketed steel spindle joined to the king pin of the truck.

Each pole shall also be provided with galvanized deck cleats and double 3/8" diameter manila bolt rope halyards with substantial all bronze swivel snap hooks secured to the ends.

The above paragraphs can be eliminated if the drawings contain complete details of the pole. In that case, refer to the drawings for this information.

Wheel Guards

Provide and set cast iron wheel guards at rear wall corners of 3/4" metal, lugs and anchors all as shown and detailed. See Figure V.

Skylight Guards

Guards for skylights shall be constructed of No. 12 U. S. Standard gauge round wire, one (1) inch mesh, in three-eighths (3/8) inch diameter round iron frames. These frames shall be removable and shall rest in one and one-half (1½) inches by one and one-half (1½) inches by one-quarter (¼) inch L and T frames raised six (6) inches above the glass and project six (6) inches beyond the glass on all sides carried on one and one-half (1½) inches by one-quarter (¼) inch bar supports, securely fixed to the skylight ribs.

Ash Hoists

Furnish and install ash hoist as manufactured by———.

Give number and type of hoist, whether electric or hand power, access ladder from hoist pit to grade, etc.

Foot Scrapers

Furnish for setting where directed cast iron foot scrapers provided with brushes and equal to the large iron size bronzed foot scraper shown in ———— Catalogue, plate ———. Each scraper to have two ½" holes drilled in the flange on one side through reinforcing lugs, and to be secured with 3/8" hair pin bolts, leaded into the cement platforms or walks where directed.

Ornamental Grilles

Furnish and install ornamental cast iron grilles for heating outlets in auditorium ceiling as shown on contract drawings. Grilles to have ribs and to be riveted to angles of steel plate rings. Rings shall be drilled as directed for attaching heat ducts, and bolted four sides to structural channels. Structural channels and heat ducts under another Division.

Ornamental Radiator Grilles

Provide and install wrought iron grilles in front of radiators as noted on plans. To have vertical and horizontal bars of sizes and spacings, and be secured to frame provided for anchorage into masonry as shown on the details. This shall include the 12 gauge metal tops which shall be of width and length indicated, and be attached as a part of grille in an approved manner. For sizes and design, see Contract Drawings.

Some architects specify radiator grilles under the Heating Division. We believe that this is satisfactory when the grilles are standard grilles but when they are a special item, i.e., either hammered wrought iron or bronze, they should be furnished with the balance of the wrought iron work.

Wire Screen Guards

Furnish and install as indicated on Contract Drawings, wire guard screens. Screens for partitions shall be made of No. 9 woven wire of 1" mesh laced in 1" channel frames and provided with ample stiffeners. To be bolted to jambs of wood partitions with about 5/8" clearance between channel frames and wood by use of metal jamb collars.

Kalamein Doors

Furnish and install kalamein doors where shown on drawings and listed for size and design on door schedule. Doors as manufactured by ————————.

Kalamein doors are of two types; Underwriters' Labeled or nonlabeled types. Underwriters' Labeled doors must be hung on steel jambs, minimum 4′ width. These jambs may be formed and rolled steel. Nonlabeled doors are hung on kalamein covered jambs.

The panels of labeled doors must be of asbestos ¼" thick. Nonlabeled doors usually use 3/8" sheet rock.

Panel moulds for labeled doors must be hollow metal while nonlabeled doors may use kalamein covered wood muntins.

When specifying doors of this type, state whether they are labeled or nonlabeled doors. The labeled doors are more costly. Local and state ordinances state where labeled doors must be used. Investigate these thoroughly before specifying which to use.

Common Iron Gratings

Furnish and install common iron gratings over all areas where indicated on drawings. Gratings as manufactured by ————————. These gratings to be fastened angle frame anchored to concrete area curbing. Angle to be furnished under another Division.

Gratings to receive shop coat of paint before delivery.

Models

Where models are called for this Contractor shall provide in his estimate the sum of ————————. This amount will be expended at the Architect's discretion for models for ornamental work; any unexpended balance reverting to the owner.

The models will be delivered to the Contractor at the modeller's studio, at [address] packed ready to ship, but this Contractor shall be required to pay all cartage charges, in connection with their transportation.

This Contractor, as a part of the work under this Contract, will be required to cooperate with the modeller so that the models furnished will be executed as far as practicable for use as patterns.

When models are required for a particular design it should be specified under that paragraph.

Iron work, whether cast or wrought, and steel should receive a shop coat of noncorrosive paint and should be specified under that paragraph. It should be further specified that the metal must be thoroughly cleaned before applying the paint. The paragraph may read as follows:

Painting

All ornamental and miscellaneous iron work herein specified or required, whether made of cast iron, wrought iron or steel, shall be thoroughly cleaned and painted one shop coat of approved noncorrosive paint.

HERE AND THERE AND THIS AND THAT

JAMES TEMPLETON KELLEY FELLOWSHIP IN ARCHITECTURE

The Educational Committee of the Boston Society of Architects announces that John E. Linnett of Boston has been appointed the fourth holder of the James Templeton Kelley Fellowship in Architecture.

Mr. Linnett expects to depart for Europe very shortly where he will devote his time to the study of domestic architecture in England, France, and Italy.

Mr. Linnett has been employed in architecture for the last eighteen years in Boston. His education has been largely obtained in these offices together with his studies carried on at the Boston Architectural Club.

THE DRAFTSMAN'S NOTEBOOK

Four of these Data Sheets will appear each month in PENCIL POINTS, giving practical information in handy form for use at the drafting table. Criticism and comment are always welcome. Address Don Graf, care of PENCIL POINTS, 330 West 42nd Street, New York.

The month's mail has brought interesting letters from Alex R. Fraser, Milwaukee; L. Fewsmith, Cleveland Heights; Porter Varney, Miami; E. G. Applegate, Grand Haven; Frank E. Dopp, Lakewood; Howard F. Baldwin, Huxton; Herman A. Bell, Miami, Ariz.; George W. Callander, Halifax, N. S.

Brother Bell writes, "I believe the Data Sheets are one of the most convenient and essential articles for the drafting room so far published. Do not feel that any drafting room can get along without them." It is always pleasant to hear that the *Notebook* is performing its mission valiantly.

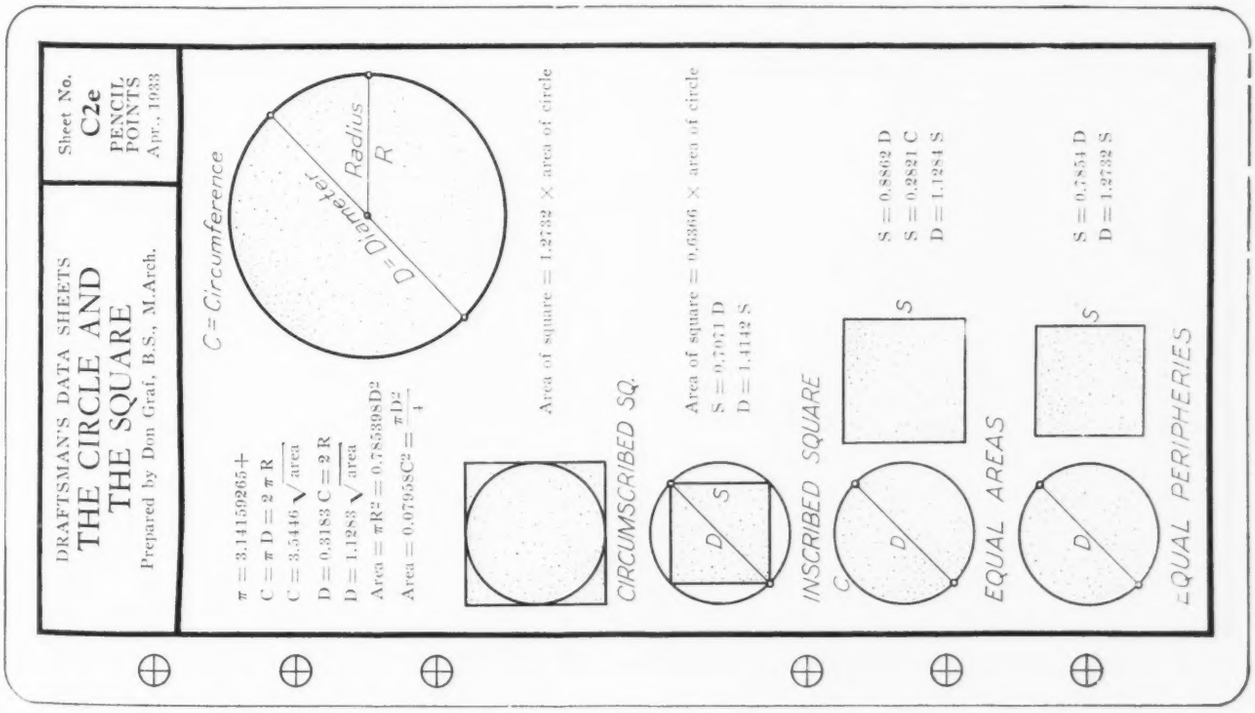
Next month there will be a Data Sheet on proper dimensions for the breakfast nook or dining alcove, made from actual measurements of many examples. Also another Sheet on correct floor construction.

THE PRINCETON PRIZES IN ARCHITECTURE 1933-1934

Two competitive prizes of Eight Hundred Dollars ($800) each, in the School of Architecture, Princeton University, are announced for the year 1933-1934. The purpose of these prizes is to permit men of unusual ability, who desire to complete their professional training, to profit by the opportunities offered by the School of Architecture, the Department of Art and Archæology, and the Graduate School of Princeton University.

The Prizes will be awarded as the result of a competition in Design to be held from 9:00 a. m. May 20th, 1933, to 9:00 a. m. May 31st, 1933. The right is reserved to withhold either or both awards in case no candidates are considered to have reached the required standard. The winners will devote the following school year to the study of advanced architectural design, and such other subjects as they may elect. They are exempt from tuition fees.

Candidates for these prizes shall be unmarried male citizens, not less than twenty-one nor more than twenty-


DRAFTSMAN'S DATA SHEETS
THE CIRCLE AND THE SQUARE
Prepared by Don Graf, B.S., M.Arch.
Sheet No. C2e
PENCIL POINTS
Apr., 1933
C = Circumference
Radius
R
D = Diameter
π = 3.14159265+
C = π D = 2 π R
C = 3.5446 √area
D = 0.3183 C = 2 R
D = 1.1283 √area
Area = πR² = 0.7853SD²
Area = 0.0795SC² = π/4 D²
Area of square = 1.2732 × area of circle
CIRCUMSCRIBED SQ.
Area of square = 0.6366 × area of circle
S = 0.7071 D
D = 1.4142 S
INSCRIBED SQUARE
S = 0.8862 D
S = 0.2821 C
D = 1.1284 S
EQUAL AREAS
S = 0.7854 D
D = 1.2732 S
EQUAL PERIPHERIES

DATA SHEET NO. C2e. *It's remarkable how easy it is to be not quite sure of the geometry learned in high school. Pi-dee-squared-over-four has a familiar sound, but better look and be sure if it's right.*

DRAFTSMAN'S DATA SHEETS
TANGENTS 45° TO 90°
COTANGENTS 0° TO 45°
Prepared by Don Graf, B.S., M.Arch.

Sheet No. C1g
PENCIL POINTS
Apr., 1933

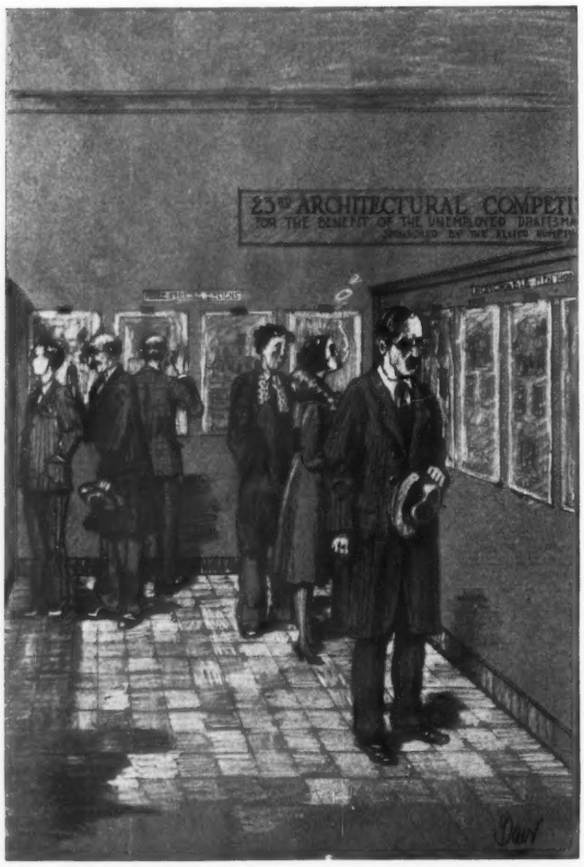
COTAN	TAN	60′	50′	40′	30′	20′	10′	0′
	45°	1.0000	1.0058	1.0117	1.0176	1.0236	1.0295	1.0355
44°	46	1.0355	1.0416	1.0477	1.0538	1.0599	1.0661	1.0724
43	47	1.0724	1.0786	1.0850	1.0913	1.0977	1.1041	1.1106
42	48	1.1106	1.1171	1.1237	1.1303	1.1369	1.1436	1.1504
41	49	1.1504	1.1572	1.1640	1.1709	1.1778	1.1847	1.1918
40	50	1.1918	1.1988	1.2059	1.2131	1.2203	1.2276	1.2349
39	51	1.2349	1.2423	1.2497	1.2572	1.2647	1.2723	1.2799
38	52	1.2799	1.2876	1.2954	1.3032	1.3111	1.3190	1.3270
37	53	1.3270	1.3351	1.3432	1.3514	1.3597	1.3680	1.3764
36	54	1.3764	1.3848	1.3934	1.4020	1.4106	1.4193	1.4282
35	55	1.4282	1.4370	1.4460	1.4550	1.4641	1.4733	1.4826
34	56	1.4826	1.4919	1.5013	1.5108	1.5204	1.5301	1.5399
33	57	1.5399	1.5497	1.5597	1.5697	1.5798	1.5900	1.6003
32	58	1.6003	1.6107	1.6213	1.6319	1.6426	1.6534	1.6643
31	59	1.6643	1.6753	1.6864	1.6977	1.7090	1.7205	1.7321
30	60	1.7321	1.7438	1.7556	1.7675	1.7796	1.7917	1.8041
29	61	1.8041	1.8165	1.8291	1.8418	1.8546	1.8676	1.8807
28	62	1.8807	1.8940	1.9074	1.9210	1.9347	1.9486	1.9626
27	63	1.9626	1.9768	1.9912	2.0057	2.0204	2.0353	2.0503
26	64	2.0503	2.0655	2.0809	2.0965	2.1123	2.1283	2.1445
25	65	2.1445	2.1609	2.1775	2.1943	2.2113	2.2286	2.2460
24	66	2.2460	2.2637	2.2817	2.2998	2.3183	2.3369	2.3559
23	67	2.3559	2.3750	2.3945	2.4142	2.4342	2.4545	2.4751
22	68	2.4751	2.4960	2.5172	2.5387	2.5605	2.5826	2.6051
21	69	2.6051	2.6279	2.6511	2.6746	2.6985	2.7228	2.7475
20	70	2.7475	2.7725	2.7980	2.8239	2.8502	2.8770	2.9042
19	71	2.9042	2.9319	2.9600	2.9887	3.0178	3.0475	3.0777
18	72	3.0777	3.1084	3.1397	3.1716	3.2041	3.2371	3.2709
17	73	3.2709	3.3052	3.3402	3.3759	3.4124	3.4495	3.4874
16	74	3.4874	3.5261	3.5656	3.6059	3.6471	3.6891	3.7321
15	75	3.7321	3.7760	3.8208	3.8667	3.9136	3.9617	4.0108
14	76	4.0108	4.0611	4.1126	4.1653	4.2193	4.2747	4.3315
13	77	4.3315	4.3897	4.4494	4.5107	4.5736	4.6383	4.7046
12	78	4.7046	4.7729	4.8430	4.9152	4.9894	5.0658	5.1446
11	79	5.1446	5.2257	5.3093	5.3955	5.4845	5.5764	5.6713
10	80	5.6713	5.7694	5.8708	5.9758	6.0844	6.1970	6.3138
9	81	6.3138	6.4348	6.5606	6.6912	6.8269	6.9682	7.1154
8	82	7.1154	7.2687	7.4287	7.5958	7.7704	7.9530	8.1444
7	83	8.1444	8.3450	8.5556	8.7769	9.0098	9.2553	9.5144
6	84	9.5144	9.7882	10.078	10.385	10.712	11.059	11.430
5	85	11.430	11.826	12.251	12.706	13.197	13.727	**14.301**
4	86	14.301	14.924	15.605	16.350	17.169	18.075	**19.081**
3	87	19.081	20.206	21.470	22.904	24.542	26.432	**28.636**
2	88	28.636	31.242	34.368	38.188	42.964	49.104	**57.290**
1	89	57.290	68.750	85.940	114.59	171.89	343.77	infin.
0	90							

DATA SHEET NO. C1g. *This is the second of the easy-reading sheets on natural trigonometric functions. Sines and Cosines next month.*

seven years of age on September 1st, 1933, who have been employed as draftsmen in architects' offices for not less than three years, or who have otherwise demonstrated their ability in architectural design.

Applications to enter the competition must be filed on or before April 22nd, 1933.

For application blanks and regulations governing the competition and award, address The Director, The School of Architecture, Princeton University, Princeton, N. J.



"THE WHOLE EXTENT OF ARCHITECTURE IN CLEVELAND AT THIS TIME"
DRAWN BY ARTHUR F. BAER

WOMAN'S ARCHITECTURAL CLUB OF CHICAGO

The Woman's Architectural Club of Chicago is planning an exhibition of women's architectural work to be held during the summer at the Architects' Club. It is believed that there will be a great many visitors to Chicago, from all parts of this country as well as abroad, during the World's Fair and that such a showing of work by women in the profession would be of particular interest at that time. The Club is endeavoring to make the showing truly representative and invites entries from women architects in the United States and foreign countries.

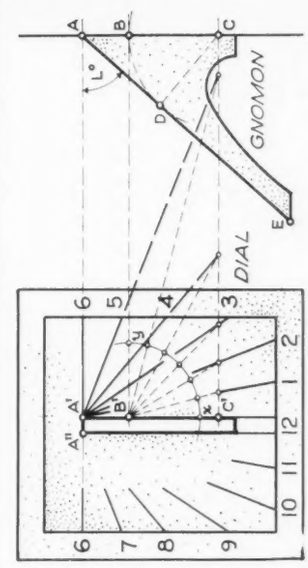
The Club's Membership Committee is inviting all women architects and architectural draftsmen not living in Chicago to become non-resident members. Applications for membership and inquiries concerning the exhibition should be addressed to Miss Margaret Fairman, 333 North Michigan Avenue, Chicago, Illinois.

"MANHATTAN LAND CRUISES"

The Women's Division of the Architects' Emergency Committee, 115 East 40th Street, New York, has arranged for special New York sightseeing tours under the guidance of architects. The tours offer a new form of employment for the architecturally trained man and present the public with a novel and interesting manner of seeing the city sights. Trips for special groups as well as general tours may be planned.

DRAFTSMAN'S DATA SHEETS
SOUTH VERTICAL SUNDIAL
Prepared by Don Graf, B.S., M.Arch.

Sheet No. F12b
PENCIL POINTS
Apr., 1933



Draw a line AC of any convenient length. Draw AE, making the included angle CAE equal to the complement of the angle of latitude (90°—lat.) of the place. These two lines form the outline of the gnomon. AC represents the plane of the dial plate, and AE is the plane of the two edges of the gnomon which cast the time-telling shadow. The gnomon may be cut away underneath to any desired design as long as these two planes are not violated.

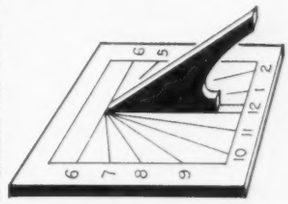
About point C describe an arc with radius CD equal to the perpendicular distance from point C to line AE, cutting AC at B. Draw lines thru A, B, C, at right angles to AC. These will intersect a convenient line parallel to AC at points A', B', C'. Line $A'A$ becomes the 6 o'clock mark on the dial.

From point B' describe a quadrant of convenient radius as xy. Divide the quadrant into six equal parts of 15° each. From B' draw lines thru the five division marks until they intersect $C'C$. Lines connecting the points on $C'C$ thus found to point A' are the 1 to 5 o'clock marks on the dial.

If it is desirable to show half or quarter hours, the quadrant is divided into 12 or 24 equal parts, the procedure then being the same. Five or one minute divisions can be then made accurately enuf on the dial face by eye.

The intersections of the planes of the sides of the gnomon with the dial plate become the 12 o'clock marks. Hours after 6 P. M. or before 6 A. M. cannot be shown on a south vertical dial.

Since the dial is symmetrical the 7 to 11 A. M. marks which converge at A'' are easily found. The sundial must be set exactly vertical and facing true (not magnetic) south.



DATA SHEET NO. F12b. *The layout of the south vertical sundial is very much like that of the horizontal dial, except the angle of the gnomon, and the rotation of the hour marks. Hours earlier than 6 A.M. or later than 6 P.M. cannot be shown on the south vertical dial.*

WHITE ANT

(Transcript of manuscript shown below)

Th' insidious termite ceases not to ply his baleful trade,
With fell intent he gnaws the wood of which our house is made.
He nibbles gaily at our oak the livelong summer's day,
Nor ceases he for fading dusk or moonlit twilight gray.
He chews by night; he chews by day;
He cannot choose but chew.
He's fond of gilt enamelled work; he likes his gesso, too.
And when the lost and luckless truss drops helpless on our heads,
He scrambles through the metal laths and eats the roofing leads.
In silent rows the painted beams sleep peaceful on the ground,
Men search the echoing patios; no sign of life is found.

JOHN PETRINA

John Petrina, author of the article beginning on page 157 of this issue, teaches drawing at Pratt Institute, Brooklyn. He has won considerable recognition in the field of illustration and graphic art. Paintings, drawings, and prints from his hand have been widely exhibited, both here and abroad.

FROM AN OLD MANUSCRIPT EXHUMED BY J. GORDON GUTHRIE

A EUROPEAN ARCHITECT'S IMPRESSIONS AND HARDSHIPS IN AMERICA

A letter from a draftsman who shall be nameless.

When I first arrived in America and stood with fully opened eyes before the huge skyscrapers, under the influence of their giant masses (knowing their strictly commercial nature), I took a very tolerant attitude relative to their exterior appearances. I studied rather their seemingly practical interior arrangements and their engineering solutions. I considered these buildings to be entirely modern and styleless, based on new ideas and modern structural framings. I did not care much that the exterior surfaces (mostly only on the lower portion and on the top) were covered by mediæval or classical motives for I considered as a practical idea the use of the rich stock of the historic styles instead of the hazardous invention of new forms.

It was only later, when I heard these structures called "masterpieces of architecture" and when I heard it remarked that the Woolworth building is "Gothic" and another is "Renaissance," that I started to realize the situation. I used for the first time a freshly learned expression and I said: "Is zat so? These buildings claim not to be only decorated boxes, but, they are striving higher?" and I began to forget my original tolerance and started to look at them otherwise.

I had the same experience with the smaller buildings. I can remember how often I stood with admiring gaze before some beautiful Colonial buildings enjoying their harmonious effect. It was the same with the English cottages and Dutch houses. But I found out very soon that these masterpieces are not so numerous and that they are just the copies of a few originals standing in New England and around Philadelphia.

I saw that all the suburban banks are Greek Temples, that all post offices have the same classical features, and I saw that all the new movies and lower store buildings have the same gingerbread architecture, called "Spanish" and originated from the worst examples of the Californian "Mission" or of the Mexican Jesuit architecture.

Later on—working in the type of American architectural office where the "architect" is hardly more than a promoter, who does not and cannot influence the creation of what is to be his signed "design"—when I saw that everything is "designed" out of magazines and books; when I heard that the customers were requesting "Collegiate Gothic" design for their 20-story apartment house boxes; when I realized that the appearance of the finished building is not as important as the perspective rendering which will be published by the Sunday newspapers; when I saw that the layout is done by the "layout specialist," that the plans are worked out by the "plan specialist," and that the "designer" is merely a decorator of the surfaces between the window openings; then I started to understand "American Architecture."

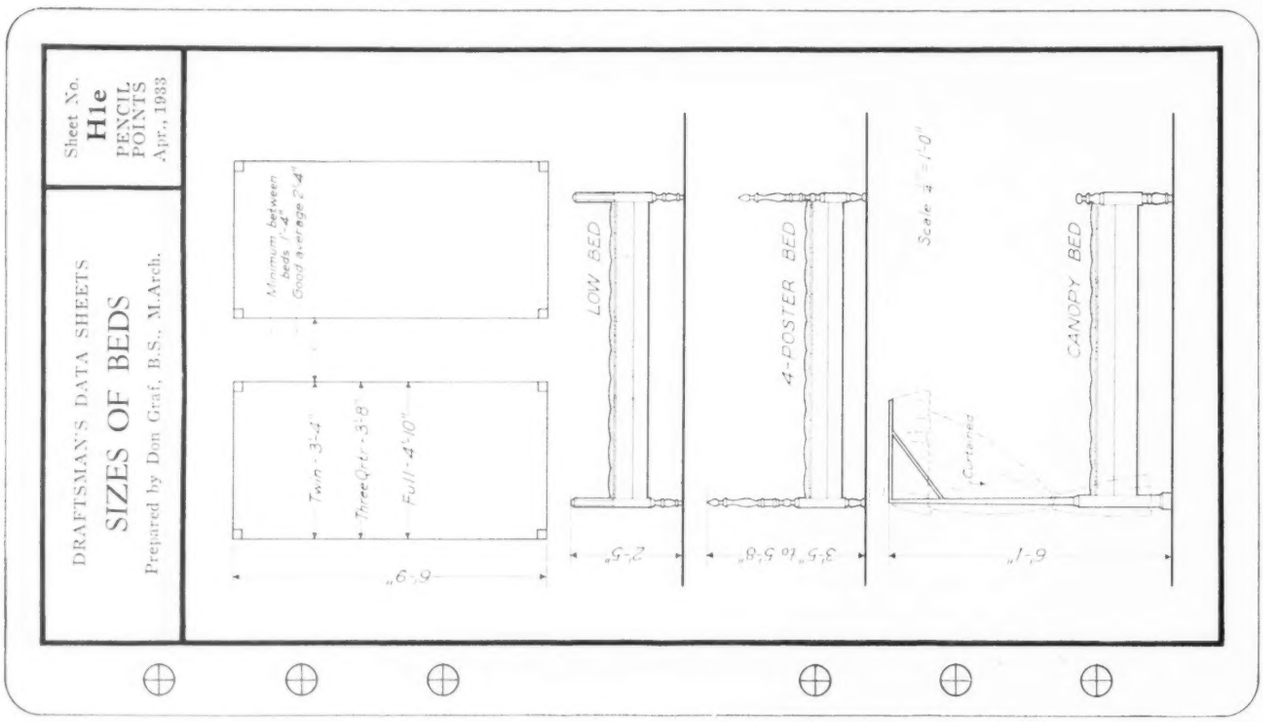
There was a case in one office—the matter of satisfying a customer who wished a 10-room cottage in the neighborhood of Chicago and who brought with him a photograph of a very poor Californian cottage of 4 rooms and who insisted on getting exactly the same thing.

I had one prominent architect as a boss who wanted me to make a perspective rendering of a corner building which had to be faked so that both elevations should look as if they were looked on from a point just opposite with the elevations. (He wanted a central projection with two eye-points!)

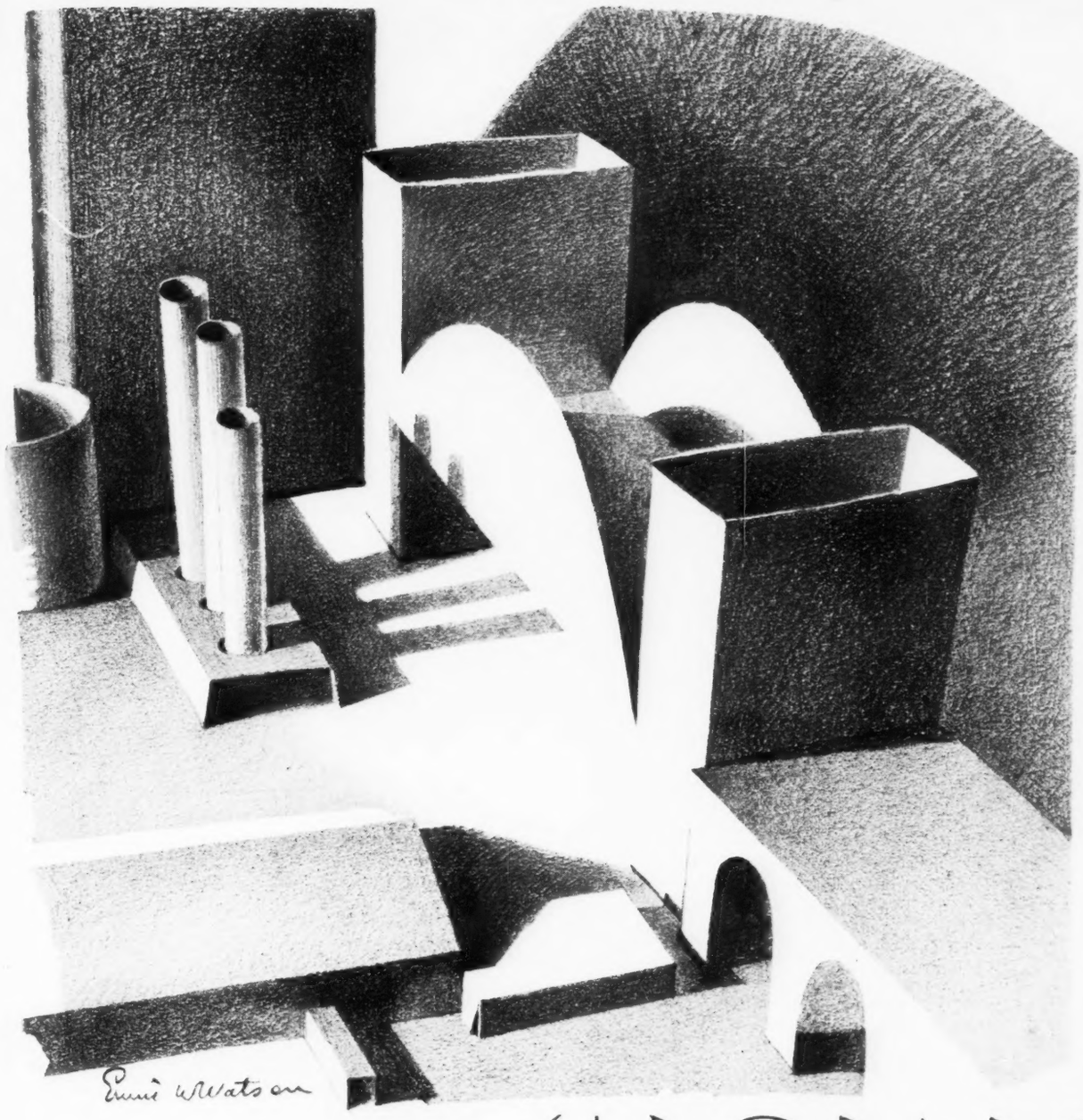
Another boss wanted a skyscraper with "Italian Renaissance" outfit on the upper floors but with a "Tudor Gothic" entrance which should be 3 stories high. (This boss was an exceptionally clever architect, for he always had some ideas and asked often the question: "Did you get the idea?" Finally, I had to answer: "Yes sir, I got the idea, but I think it is a sick idea.")

It often happened with architects that they did not tell

(Continued on page 23, Advertising Section)



DATA SHEET NO. H1e. *There are as many sizes and styles of beds as there are of people to sleep in them. This sheet gives the average sizes and range of heights.*



H HB B 2B 3B and 4B

ELDORADO

THE MASTER DRAWING PENCIL

THIS scene might be called Going Down to the Waterfront in Slips — of paper. No world would be complete without its waterfronts. What would the Grecian world have been without the Piraeus?

This fourth in the series of world-building scenes — sketched by Ernest W. Watson, from his own models, with Eldorado, the master drawing pencil — will give you many hints on subtle tone composition. All you need is some stiff white paper, a scissors, a bit of paste, a bright light, a bit of patience, and Eldorado — in the degrees specified.

Keep changing the position of your light until you achieve the effect you want. Above all, do not try — even though your practical nature may tempt you — to construct a realistic bridge or smoke-stack. This is pure fantasy, and the object is to reveal the various methods of obtaining the proper effects of light and shade in pencil rendering.

None of the tones are to be rubbed. The directional flow of the strokes gives a much more interesting finish. It *is* proper, however, to use a kneaded eraser for picking off tones that may have been overemphasized.

Although the shadows in this waterfront scene are rendered almost photographically, close observation will show that they are controlled in the interest of composition. The tone of the ground plan would be a uniform gray in a photograph. In this study it fades to white under the bridge — for a purpose. Eldorado's constant degrees of lead are perfectly adapted for the purpose. Joseph Dixon Crucible Company, Dept. 167-J, Jersey City, N. J.

SERVICE DEPARTMENTS

THE MART. In this department we will print, free of charge, notices from readers (dealers excepted) having for sale, or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

PERSONAL NOTICES. Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

FREE EMPLOYMENT SERVICE. In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions. Such notices will also be posted on the job bulletin board at our main office, which is accessible to all.

SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES: Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire concerning it.

Notices submitted for publication in these Service Departments must reach us before the fifth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York, N. Y.

THE MART

F. E. Mathews, 3001 East Third Street, Los Angeles, Calif., has the following copies of PENCIL POINTS for sale: May through October, and December, 1922; January through June, 1923; March through July, September, October, and December, 1925; January through April, July, August, and October, 1926; November and December, 1928; 1929, complete; July through December, and January, 1930; 1931 and 1932, complete.

Charles J. Nora, 920-19th Street, N. W., Washington, D. C., wishes to purchase *The Geometry of Architectural Drafting*, Parts 1 to 14, by Ernest I. Freese.

Arrow Book Company, 167 Madison Avenue, New York City, would like to purchase the following *White Pine Series:* Vol. 2, Nos. 1, 3, and 4; Vol. 3, Nos. 1, 2, and 4.

William Helburn, Inc., 15 East 55th Street, New York City, would like to purchase the following: *French Cathedrals*, by Pennel; *Architecture in Italy*, by Cattaneo; *History of Architecture*, by Sturgiss; *Architecture, Furniture and Decoration*, by Elwell; *White Pine Series*—Vol. 2, Nos. 1, 3, and 4; Vol. 3, Nos. 1, 2, and 4.

Adrian Wemhoff, 416 Marshall Street, Decatur, Indiana, would like to purchase *A History of Architecture on the Comparative Method*, by Sir Banister Fletcher, F.R.I.B.A., published by B. T. Batsford, London. State price and condition of book.

Oscar Brauch, 609-11 W. Cambria St., Philadelphia, Pa., would like to obtain a copy of the October, 1930, issue of PENCIL POINTS.

Frank P. Whiting, Cooperstown, N. Y., would like to obtain a second-hand etching press, preferably 12″ x 30″, operated by gear and arms. Please send snapshot of press, with size of plate and price.

John Louis Wilson, 261 West 125th Street, New York, N. Y., would like to purchase a Kidder-Nolan handbook, 17th edition, or the current Kidder-Parker. State price.

Raymond J. Percival, 121 Washington St., Forestville, Conn., would like to obtain the following *White Pine Series:* Vol. 1, No. 3; Vol. 2, Nos. 1, 3, and 6; Vol. 3, Nos. 1, 2, and 4.

Lester Ernst, 3 Covill St., Victor, New York, would like to purchase a copy of the May, 1922, issue of PENCIL POINTS.

Charles T. Aubin, 1114 Smith Young Tower, San Antonio, Texas, would like to obtain copies of the following: *California Arts and Architecture*, from January, 1931, to March, 1933, inclusive; late issues of *Architectural Digest*; Byne & Stapley, *Decorated Wooden Ceilings in Spain*; Mack & Gibson, *Architectural Details of Northern and Central Spain*, and *Architectural Details of Southern Spain.*

Fred J. Schmidt, 4924 10th Avenue, Los Angeles, Calif., would like to secure a set of books on delineation or illustrating, such as I. C. S. or Federal Art Schools.

The Librarian, Cambridge School of A. & L. A., 53 Church Street, Cambridge, Mass., would like to obtain a copy of Vol. 2, No. 6, of the *Architectural Digest*, published in Los Angeles.

Stanley E. White, Cold Spring, N. Y., would like to purchase, at half the retail price, a copy of the 18th edition of the Kidder-Parker *Architects' and Builders' Handbook.*

David A. Franklin, Instructor for the Emergency Unemployed Relief, is giving a course to unemployed men. He would appreciate it if architects would contribute magazines, blueprints, and details of country houses, etc., plates, books, or other material. Address him care of West Side Continuation School, 131 6th Avenue, New York, N. Y.

Phil Kutz, 2548 S. Bronson Ave., Los Angeles, Calif., will exchange three brand new issues of November, 1930, PENCIL POINTS for one issue of the December, 1932, *Architectural Forum*, to be in good condition. Would also like to obtain the *Forum* index for last half of 1932.

PERSONALS

CLYDE F. TRUDELL, ARCHITECT, has opened an office for the practice of architecture at Richmond Road, Williamsburg, Va.

JOSEPH C. BECK, ARCHITECT, has moved from the San Jacinto Life Building to 978 Orange St., Beaumont, Texas.

OLIVER REAGAN, ARCHITECT, has opened offices for the practice of architecture at 101 Park Avenue, New York, N. Y.

The firm of MALKIND & WEINSTEIN, ARCHITECTS, formerly at 93 Court Street, Brooklyn, N. Y., have dissolved partnership.

SAMUEL L. MALKIND AND J. LEWIS MAYERS have formed a new firm for the practice of architecture under the name of Malkind & Mayers, with offices at 105 Court Street, Brooklyn, N. Y.

ABRAHAM H. OKUN, ARCHITECT AND ENGINEER, has removed his office from 27 Cottage Street to 51 Liberty Street, Monticello, New York.

(Continued on page 24)

EMPLOYMENT SERVICE ITEMS WILL BE FOUND ON PAGE 24, ADVERTISING SECTION

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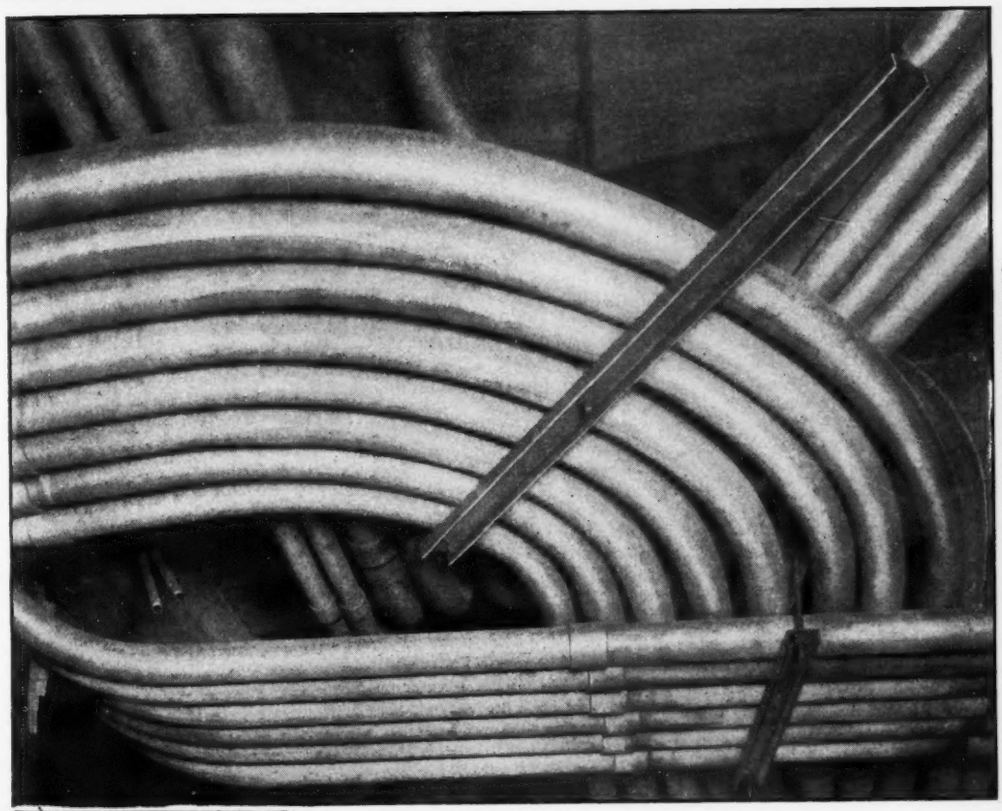

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Publications on Materials & Equipment

Of Interest to Architects, Draftsmen and Specification Writers

Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS *by the firm issuing them. When writing for these items please mention* PENCIL POINTS.

The Story of Stairs.—A.I.A. File No. 14-d or 15-d. Useful new reference folder for architects and draftsmen intended to point out how all component parts of the stairs may be made the focal point of attraction in the general scheme of things. It shows, in part, by means of detail drawings and text, how stringers and risers, newels and railings may be supplied with a new and up-to-date touch. 8½ x 11. J. G. Braun Co., 537 W. 35th St., New York, N. Y.

Electrunite Boiler Tubes.—New bulletin describing briefly the advantages of a recently-developed type of electric resistance weld boiler tube for use in either fire-tube water-tube boilers requiring either straight or bent tubes. 4 pp. 8½ x 11. Steel and Tubes, Inc., 224 East 131st Street, Cleveland, Ohio.

Kliegl Spotlights and Accessories.—Bulletin No. 105, just issued, illustrates and describes in detail a wide range of spotlights, for both arc and incandescent lamps, suitable for use in theatres, ballrooms, photographic studios, schools, churches, clubrooms, etc. Data is included on spotlight accessories and supplies. Indexed. 28 pp. 8½ x 11. Kliegl Bros., 321 W. 50th St., New York, N. Y.

Ideal Oil Burning Boiler—No. 12—DeLuxe Model.—A.I.A. File No. 30-c-14. Attractive new brochure with descriptive and engineering data covering a new type of oil burning boiler designed to operate with either gun-type or rotary-type of burner and suitable for steam and hot water heating systems. Dimension drawings, tables. 14 pp. 8½ x 11. American Radiator Co., 40 W. 40th St., New York, N. Y.

Published by the same firm, "New Ideal Hot Water Supply Boiler." Folder outlining the principal features of a new hot water supply boiler. Capacities, dimensions, tappings.

The Gold Book on Partitioning by Hauserman.—A.I.A. File No. 28-a-3. Valuable new reference book containing complete description, details, floor plans, specifications and illustrations of both office building and industrial movable steel partitions, as well as the new 4-in.-thick flush type movable steel Masterwall for corridors. 18 pp. 8½ x 11. The E. F. Hauserman Co., 6994 Grant Ave., Cleveland, Ohio.

Published by the same firm, "Hauserman Movable Partitions —Types T and R." A.I.A. File No. 28-a-3. Illustrated bulletin covering a line of movable partitions especially designed for dividing and subdividing office space. Construction details. 8 pp. 8½ x 11.

Carrara Modern Structural Glass.—A.I.A. File No. 22-F. Brochure featuring the use of black and white Carrara as a structural material in office buildings, theatres, hotels and other large buildings as well as in homes and other places. Specifications, installation data, details. 12 pp. 8½ x 11. Pittsburgh Plate Glass Co., Grant Bldg., Pittsburgh, Pa.

Calibron Perspective Machine.—Folder describing the method of making perspectives with a newly-developed machine especially adaptable for use in drafting rooms. 4 pp. Calibron Products, Inc., West Orange, N. J.

Cobbsment for Leakless Masonry.—Bulletin No. 2 presents specification and descriptive data covering a new plastic masonry mortar. Glencoe Lime & Cement Co., 1608 Pine St., St. Louis, Mo.

Multi-Panel Air Filter.—A.I.A. File No. 30-d-3. Bulletin 240 presents detailed mechanical specifications covering two types of multi-panel air filters for continuous or heavy-duty service and for ventilation or intermittent service. Capacity tables. 8 pp. 8½ x 11. American Air Filter Co., Inc., Louisville, Ky.

Douglas Fir Plywood.—New illustrated publication for architects and builders giving test data, construction details, finishing instructions and other helpful facts about Douglas fir plywood and its various applications. Douglas Fir Plywood Manufacturers, Skinner Bldg., Seattle, Wash.

Wayne Oil Burner.—Illustrated bulletin setting forth the advantages of the Wayne oil burner suitable for installation on any type of vapor, hot water, steam or hot air heating plant. 8 pp. 8½ x 11. Wayne Oil Burner Corp., Fort Wayne, Ind.

D. & T. Vacuum Form.—New publication giving detailed explanation of the operation of the vacuum form, a new device for use on low-pressure steam heating systems. Installation instructions, diagrams, etc. 24 pp. D. & T. Manufacturing Co., 3001 LaSalle St., St. Louis, Mo.

Eternit Asbestos Cement Brick-Type Siding.—Descriptive folder covering a new type of siding material designed primarily for modernizing existing buildings, also for new buildings of all types. Eternit, Inc., 95 Madison Avenue, New York, N. Y.

Cyclone Fence.—Attractive brochure illustrating typical applications of Cyclone fence for suburban homes, country estates, game preserves, tennis court enclosures, paddocks, etc. Cyclone wrought iron fence and gates and cedar fence applications are also included. Details. 16 pp. 8½ x 11. Cyclone Fence Co., Waukegan, Ill.

Trane Climate Changer.—New catalog for architects and heating engineers covering a complete air conditioning machine that automatically heats, humidifies, cleans and circulates warm air in Winter and during Summer it cools, dehumidifies, cleans and circulates air into every room. 12 pp. 8½ x 11. The Trane Co., LaCrosse, Wis.

The Low Cost Fireproof Home.—New folder illustrating and describing the construction of a low cost fireproof home having concrete floors, walls and roof. Portland Cement Association, 33 West Grand Ave., Chicago, Ill.

New Kawneer Sash for Store Fronts.—A.I.A. File No. 26-b-1. Set of folders with detail drawings announcing and describing a new sash for store fronts appropriate for use with any architectural treatment. The Kawneer Co., Niles, Mich.

Concrete Joist Floor Construction.—Illustrated folder explaining briefly the advantages of concrete joist construction for the floors of hotels and apartments. 4 pp. 8½ x 11. Concrete Reinforcing Steel Institute, Forms Dept., 333 North Michigan Blvd., Chicago, Ill.

RCA Victor Portable Public Address Systems.—Descriptive bulletin covering a portable public address system especially desirable for use in the average theatre, auditorium, ballroom, etc. Operating instructions and connecting diagrams. 8 pp. 8½ x 11. RCA Victor Co., Inc., Camden, N. J.

Red-Top-Rib Floor and Roof Slabs.—A.I.A. File No. 4-e-52. Folder with illustrations and detail drawings describing a new type of floor and roof slab for low-cost steel frame construction. 4 pp. 8½ x 11. United States Gypsum Co., 300 W. Adams St., Chicago, Ill.

Norton Floors.—A.I.A. File No. 3-d-5. New bulletin discussing the advantages of the use of Alundum aggregate in the surfaces of terrazzo, cement, composition and other floorings. Descriptive and specification data. 4 pp. 8½ x 11. Norton Co., Worcester, Mass.

Newera Three-Stream Angle Bubbler.—Folder explaining the features of a three-stream angle bubbler for drinking fountains. Crane Co., 836 S. Michigan Ave., Chicago, Ill.

Published by the same firm, "Metro Lavatory Faucet." Descriptive bulletin covering a line of slow-closing, self-closing lavatory faucets for use in public and semi-public buildings.

Ribac Hardwood Flooring.—A.I.A. File No. 19-e-9. Folder describing the mechanical features of Ribac floor blocks and planks suitable for laying over a wood subfloor or for installation over concrete subfloors in cold or hot mastic. 4 pp. 8½ x 11. Plywood Products Co., Inc., Louisville, Ky.

Masterbuilt Floors.—Useful reference manual presenting complete descriptive and specification data covering a line of concrete colored and uncolored floor hardeners, concrete colored and uncolored waterproofings and technical treatments for concrete and masonry. Color charts, test data. 20 pp. 8½ x 11. The Master Builders Co., Cleveland, Ohio.

Nu-Wood Bevel-Lap Tile.—Brochure giving complete data covering a wood fibre tile especially suitable as a permanent wall covering, with acoustical and insulation qualities, for the walls and ceilings of all types of buildings both new and old. Included are color plates and photographs showing patterns of tile arrangements, colors and wide variety of applications. 24 pp. 8½ x 11. Wood Conversion Co., Cloquet, Minn.

Inland 4-Way Floor Plate.—Descriptive folder with tabular matter covering a type of floor plate suitable for floors, walkways, steps, stairs and other applications. Inland Steel Co., First National Bank Bldg., Chicago, Ill.

S & K New Era Window Unit.—Folder presenting details and descriptive data covering a new weightless, factory-fitted and weatherstripped window unit. 4 pp. 8½ x 11. Segelke & Kohlhaus, LaCrosse, Wis.

Westinghouse Floodlighting Equipment.—A.I.A. File No. 31-f-24. Catalog 219-C covers a line of floodlighting equipment suitable for a wide variety of applications. Drawings, application and construction data are presented pertaining to each type. Indexed. 52 pp. 8½ x 11. Westinghouse Electric & Mfg. Co., Cleveland, Ohio.

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A EUROPEAN ARCHITECT'S IMPRESSIONS

(Continued from page 196, Editorial Section)

their opinions upon submitted tentative elevation sketches until the next day. They had to consult their wives first. Sometimes they criticized the submitted sketches but they seldom went beyond such rather superficial remarks as: "I think it is too heavy," etc.

Once there was a city official as a customer who insisted that a new library building to be built must have the appearance of an English country home. There was another whose only wish was: "More terra cotta!"

Finally (I could fill two volumes with similar experiences) there was a boss who asked me when the building he "designed" was already erected: "What style do you call that?" and another who did not accept an architectural motive until I chased up a similar thing in an English book and showed him.

After many years of experience, I can now understand why there are so many copies and adaptations of building designs in this country. I understand now why I can find, on the American streets, Venetian houses with the true copies of the rings wherewith to fasten the gondolas. I am not puzzled any more at seeing St. Peter's Cathedral rebuilt in a minor scale in Montreal. I am now rather pleased to recognize some old friends of the old country and I am inclined to forget their poor appearance in the new surroundings. Yes, I think that I know why the freshly built American Colleges must ape the complicated and sometimes inharmonious conglomeration of buildings exhibited by some old English universities which have been built successively during half a dozen centuries.

A magazine editor wrote me once: "We feel that the American architectural literature is lacking in criticism, but there are so few people competent to criticise." I answered: "Who is competent to build?"

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Position Wanted: Architectural designer and delineator, twenty years' practical experience in reputable offices of the East. Graduate of an accredited school seeks opportunity with architect whose time is mostly occupied with clients, etc., and who would require the services of a man of diversified experience. Exceptionally qualified by training for composition in plan and facade for buildings of any purpose and style. Salary easily arranged. Location anywhere, permanent or temporary. Box No. 400, care of PENCIL POINTS.

Position Wanted: I am 27 years of age and unmarried. I have had several years' experience with architects and contractors, here and abroad. Will go anywhere at very moderate wages. Box No. 401, care of PENCIL POINTS.

Position Wanted: Licensed architect and engineer with 23 years' work-wide professional and sales experience, having operating office near New York City, desires to represent responsible company in buying, sales or executive capacity. Box No. 402, care of PENCIL POINTS.

Position Wanted: Los Angeles preferred location, no objection to any permanent location. Three years' college architectural engineering, four years' technical experience. Expert typist. Detailed information as to experience and character reference as required. Age 26, married. E. Minor, 224 N. Karlow Avenue, Chicago, Ill.

Position Wanted: Opportunity for architect to retrench —Draftsman with 15 years' experience in all branches of architect's work, starting as expert stenographer, secretary and office manager, and developing into first-class draftsman with experience in some of best offices in New York during past 12 years. Capable of being one-man office and willing to work for nominal salary. Age 32 and educated at Columbia University. Box No. 411, care of PENCIL POINTS.

Wanted: Salesman to call on architects, artists, art schools, with line of transparent water colors. 25% commission. Circolo Color Co., 118 East 28th Street, New York, N. Y.

Position Wanted: Japanese young man, age 21, graduate of Heald's Engineering College desires position in architect's or builder's office. Salary no object. Experience main incentive. Harry Ikemoto, Route 1, Box 196-C, Sacramento, Cal.

Position Wanted: Architect registered in New Jersey, American, single, middle-aged caretaker for hotel or residence. Will make minor repairs, also painting and decorating, operate low pressure heating plant, drafting and supervise alteration work. Moderate salary with room and board. Complete information on request. Box No. 406, care of PENCIL POINTS.

Wanted: A young man, student preferred, to start as junior draftsman. Salary will be small to start with. Box No. 408, care of PENCIL POINTS.

Position Wanted: Young man, 27, married, good education, eight years' architectural and commercial experience. Desires position representing manufacturer of building materials. Willing to work and study product from raw material stage to finished job. Salary to cover expenses only, with promise of permanent position when business conditions and my ability warrant advancement. Box No. 403, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, 26, single, eight years' experience ornamental iron and bronze. Technical education. Have served with several well known organizations. References. Box No. 409, care of PENCIL POINTS.

Position Wanted: Landscape architect and small home designer, fifteen years' experience in home architecture. Knowledge of structural engineering and design, interior decorating and design. Home garden design, parks, modern parks, cemeteries, institutional and city playgrounds, golf courses and city subdivisions. Box No. 410, care of PENCIL POINTS.

Position Wanted: Is there an architect with an office and an established practice, now dormant or partially inactive, who would like to take into his office a college graduate, 26 years of age, who is a registered architect in the state of Ohio paying him a salary sufficient only to meet his expenses at this time, but with the intention of making him a member of the firm now or in the near future and rescaling his salary when business improved? Architects interested please write Box No. 404, care of PENCIL POINTS.

Position Wanted: Architectural draftsman, 27 years old. Experienced on apartment houses, office buildings, residences and manufacturing buildings. Have had quite a bit of experience on alteration job. Familar with building department work. Will work for any reasonable offer. Will you grant me an interview? Sanford S. Glynn, 2971 Ripple Street, Brooklyn, N. Y.

Position Wanted: What have you to offer a man, married, age 32, two children, considered good draftsman, honest and dependable. Experience embraces cottage design and construction supervision. Thoroughly experienced in steel windows, radiator enclosures and silent forced ventilation (design, fabrication and sale of same). Thorough experience in stone (detail, design, fabrication and erection). Harold Shipley, P. O. Box 97, Mt. Airy, Maryland.

Wanted: Salesmen to sell bronze signs to architects. Mark Specialty Company, 1315 Temple Building, Rochester, N. Y.

Representative Available: Manufacturers and others seeking economical representation in Mid-Atlantic states to reduce expenses or supplement efforts of existing staff should be interested in my proposition. Registered architect and engineer, 23 years' experience includes industrial, public works and residential construction; foreign (principally South American) materials exploration, development, and negotiation for American manufacturers; purchasing material and equipment for construction; sales promotion. Have operating office near New York City. Box No. 411, care of PENCIL POINTS.

MANUFACTURERS' DATA WANTED

(Continued from page 20)

REQUESTS FOR manufacturers' literature have been received from the following:

WALLACE C. SPROULE, ARCHITECT, 303/2400 Queen Street East, Toronto, Ont., Canada.

FRANK L. PETRILLO, ARCHITECT, 2220 So. 63rd Street, West Philadelphia, Pa. (for an A.I.A. file).

GEORGE HITCHINGS, ARCHITECT, Room 4 Odd Fellows Block, Rumford, Me.

JOSEPH ALLAN, ARCHITECT, 15 James St., Newark, N. J.

FRANCIS B. PARSONS, ARCHITECT, Forest Acres, Petersham, Mass. (for an A.I.A. file).

CARL T. JENSEN, draftsman, 229 East 60th St., Los Angeles, Calif.

M. P. MACKIEWICZ, draftsman, 2617 N. Albany Ave., Chicago, Ill.

CARL J. RUDINE, draftsman, 808 Monroe St., Ann Arbor, Mich.

CHAS. H. ACKLEY, student, Rock Springs Park, Chester, W. Va.

F. V. CLARK, student, 225 Weston Rd., Crookes, Sheffield, 10, England.

SIDNEY BIERMAN, student, 5347 Wells Ave., St. Louis, Mo.

EDMUND MANNERS, student, 30 Margaret Street, Welland, Ont., Canada.

KENJI ONODERA, student, Box 622, Station A., Champaign, Ill.

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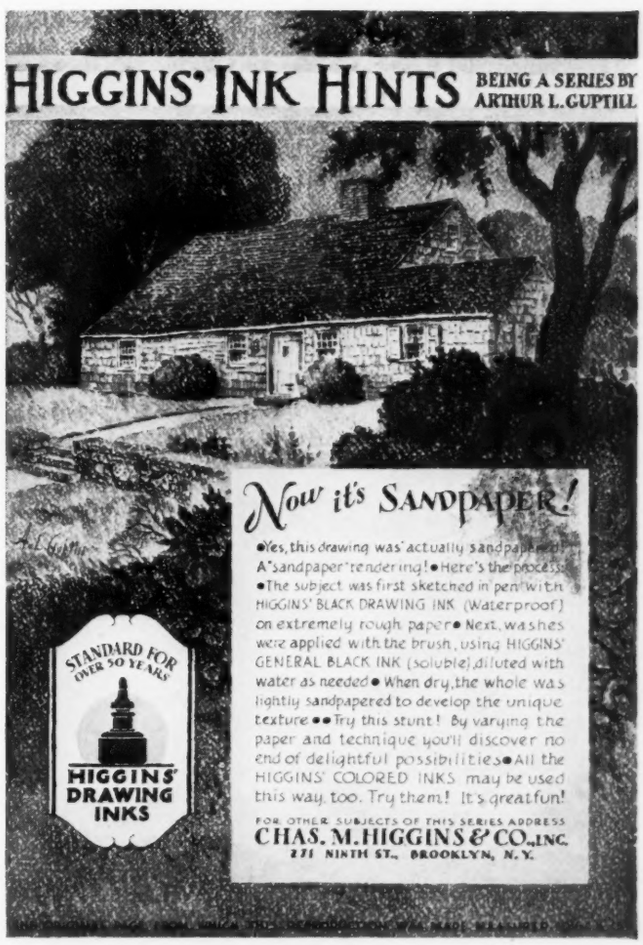
Competitors are allowed to prepare their drawings wherever conditions conform to the requirements of the Committee, but these drawings must be sent to Boston for judgment.

Applications should be received on or before April 17, addressed to Professor William Emerson, 491 Boylston Street, Boston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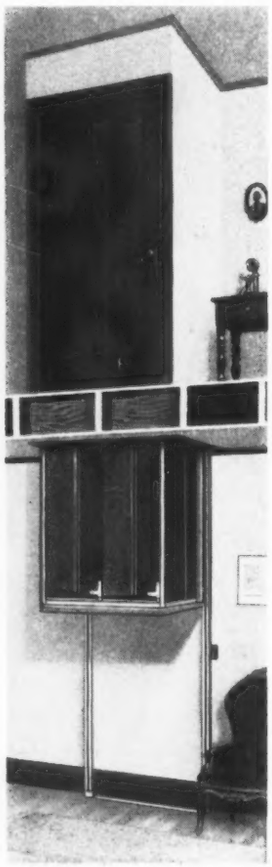
A NEW RESIDENCE ELEVATOR

The new Shepard HomeLIFT, recently introduced by The Shepard Elevator Co., Cincinnati, Ohio, provides, it is stated, a complete automatic elevator at a cost so low that people of ordinary means can easily afford it. It is said to be so simple in operation that any child or aged person can operate it; so safeguarded that no one can be injured, no matter how carelessly the lift may be used; so designed that it operates from the regular lighting circuit, needing no power line.



The HomeLIFT may be installed in an existing home as well as in one being erected; it merely requires an opening slightly larger than the size of the cab between the first and second floors. No first floor enclosure or pit, no cutting of the second floor ceiling is necessary. When the cab is on the second floor all that is visible on the first floor are the two small rails along the wall which may be painted to match wall covering.

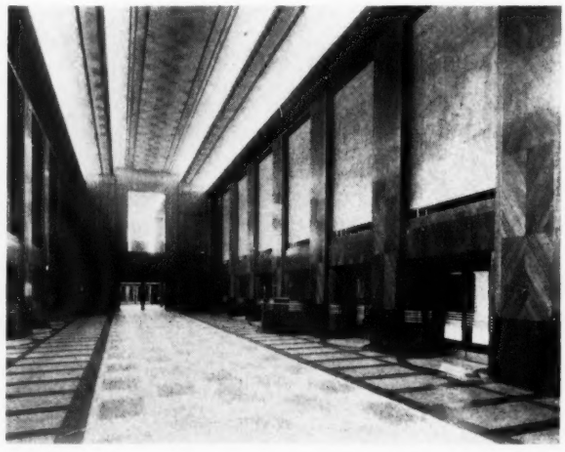
Simple switches downstairs, upstairs and within the cab control the HomeLIFT. When in motion or downstairs, the door to the enclosure upstairs is automatically locked. The cab door must be closed and is locked while the cab is in motion. The elevator will not move unless all safety precautions have been taken. Children and pets may play under the elevator without fear, as the cab when descending stops instantly at the slightest touch on the bottom. The HomeLIFT, standard size, has a platform 30 in. x 30 in., and a lifting capacity of over 350 lbs.

PHEMALOID COMPOUND LUMBER

A recently-developed interior paneling material, known as Phemaloid Compound Lumber is offered by the Haskelite Manufacturing Corp., Chicago. It is made with any type of decorative veneer face and may be used for interior paneling of clubrooms, living and dining rooms, office partition work, flush type doors and for flooring, or wherever plywood or lumber is commonly used. The accompanying illustration pictures the installation of this paneling in the main lobby of the Grand Rapids Civic Auditorium. The veneers used were Hudoke, French Walnut and Tasmanian Oak.

Phemaloid Compound Lumber is manufactured in large, hydraulic, electrically heated presses. It is made of cross-laminated wood, glued with a new phenol-formaldehyde colloidal resin which is immune against water, mold and fungi.

Since Phemaloid Compound Lumber is made from natural woods, it can be sawed, shaped and painted by the



ordinary carpenter or painter, and is installed just like wood or plywood. Panels may be butt jointed or, where desired, can be furnished in large-piece panels, suitable for the entire side of a room. The common practice, however, is to use pilasters or cover strips. Panels available in stock sizes are 6 ft. by 8 ft., 8 ft. by 11½ ft., and 8 ft. by 17 ft.

CALIBRON PERSPECTIVE MACHINE

The new perspective machine recently introduced by Calibron Products, Inc., West Orange, N. J., offers to architects a drafting room device that has so simplified the making of perspective drawings that any draftsman can make accurate perspectives rapidly.

The device consists of a perspective drawing mechanism mounted on a specially constructed drafting table. The visible portion of this mechanism, consisting of a cylinder and sliding straight-edge mechanically connected together, is shown in the illustration.

On the drafting board there is fastened a sheet of specially ruled paper, the upper portion of which has a series of converging straight lines which become vertical straight lines on the lower portion of the paper. The horizontal dividing line, near the center of the paper represents the trace of the picture plane. There is at-

tached to the cylinder a sheet of ruled paper with lines representing perspective heights.

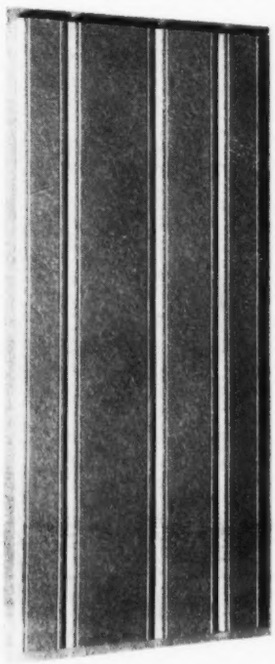
Only three simple operations are necessary to obtain the perspective position of any point. By connecting the principal points a true perspective is obtained.

The Calibron Perspective Machine is of particular value as a time-saver in dealing with problems that involve unusual angles, difficult curves, and inaccessible vanishing points.

NU-WOOD BEVEL-LAP PLANK

Among the products recently added to its line by the Wood Conversion Co., Cloquet, Minn., is Nu-Wood Bevel-Lap Plank, a new wall material combining the multiple functions of surfacing, heat insulation, noise hushing, acoustical correction, and semi-permanent decoration.

It is formed from Nu-Wood rigid fibre board in planks with interlocking edges. The planks measure 6 ft. to 12 ft. in length and 8, 10, 12 and 16 in. in width. It comes in two standard patterns. One is a simple bevel edge which forms a "V" joint when assembled. The other pattern is a beaded modified bevel edge which on the wall makes a simple but interesting joint design in soft vertical lines and shadows.



The material comes in two textures which can be used singly or in combination. One surface is smooth and textile-like in appearance; the other surface has a rougher mat finish best described as a flowing ripple. Colors range from wood-ash grey to rich wood browns; the best effect on the wall is obtained through the use of the full range of five color variations placed at random. Random widths are most in demand although single widths and combinations of various widths make pleasing wall surfaces.

Nu-Wood Plank is one member of the Nu-Wood family of room finishing products including tile, mouldings and panel strips, which together with the large sheets of Nu-Wood board make possible an unlimited decorative and finishing scope.

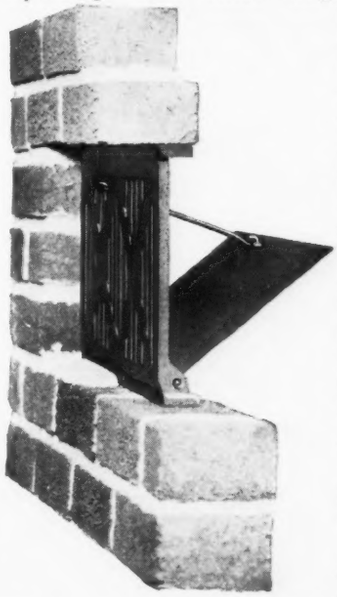
Nu-Wood board although rigid is extremely pliable in the hands of the ingenious designer and readily workable under the cutting and grooving tools of the average carpenter.

THE VICTOR VENT

A practical house and building ventilator, the Victor Vent, designed for installation in foundation walls, has been introduced by the J. W. Fiske Iron Works, New York. It is made of cast iron, a single casting, 9 in. x 16 in. over all, with an arch bar over an inch in width to provide sturdy support for brick work above. The vent face is divided into two parts, each side carrying six half-inch bars, spaced one-half inch apart, and reinforced with cross bars on each side, adding extreme strength reinforcement and lending ornament to design.

Protection against reptiles, rodents and large insects is afforded to building equipped with the Victor Vent by a non-rust hardware screen riveted to the back of the vent with copper rivets.

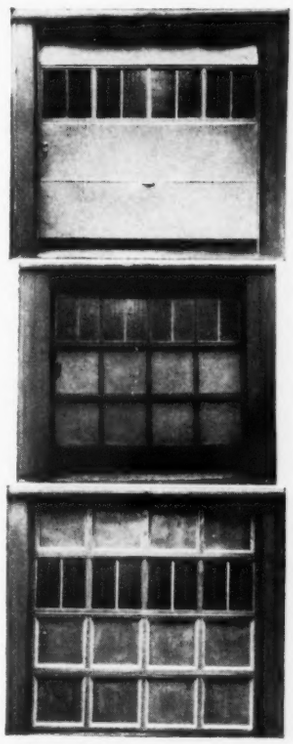
The novel feature of the Victor Vent is the shutter. Operating on a rolled hinge and made of sheet iron, the shutter is hinged to the bottom of the casting and attached to a push rod which extends through the frame. Ample ventilation is afforded by pushing in rod, which causes the shutter to fall back. The shutter may be closed from the outside by simply pulling out the push-rod and allowing it to hang down, its leverage and weight providing an efficient fastener.



The Dixie Vent is built along the same practical lines of the Victor. It is made of cast iron in one piece with arch bar extended for mortar joint insertion and has all the advantages of the Victor except the shutter and wire-mesh guard.

CORNELL FLOAT-OVER DOORS

A radically new overhead acting door, made of tubular steel that is said to be as light as wood, is announced by the Cornell Iron Works, Long Island City, N. Y. It is known as the Float-Over and is operated by the exclusive Cornell system of counterbalance, similar to that used on rolling doors. In addition to being wind-resistant and sagproof the doors, it is stated, are fireproof and burglarproof.



To guard against weather and heat loss a feather touch, self-adjusting weatherstrip was created. This unique weatherstrip is made of two cold rolled galvanized interlocking steel channels set one within the other actuated by steel springs. The action is unnoticeable but not only do they fit snugly against the jamb, but close up all space due to shrinkage or warping of jamb, etc.

The Cornell Float-Over doors are made on frames of 2 in. cold rolled, galvanized, copper bearing steel tubes, of carefully checked designs for strength and stiffness. Doors operate upward on two cold rolled steel tracks. Doors ride, at all points, on ball bearings. High test cables winding on machine grooved drums lift and lower doors in smooth silence. They are made in three types, flush, standard and molded panel, as illustrated.

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